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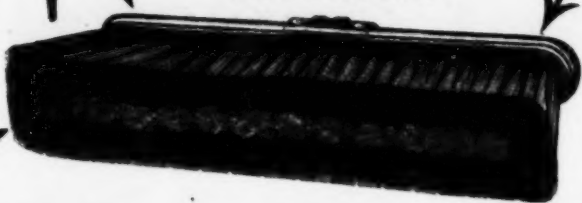
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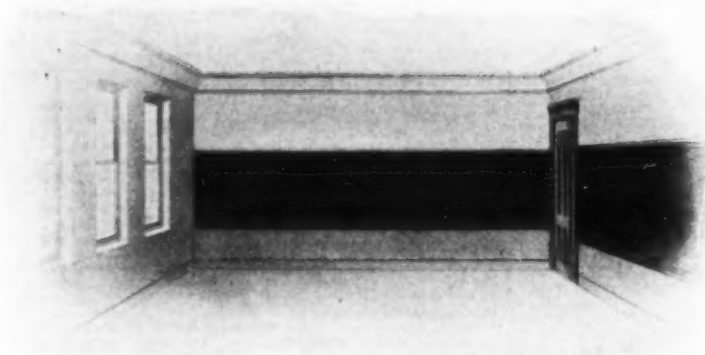
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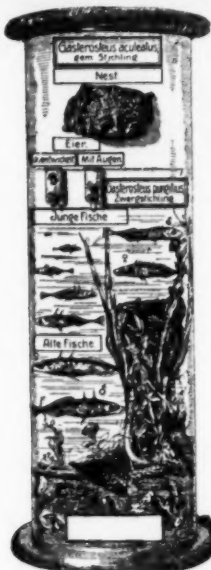
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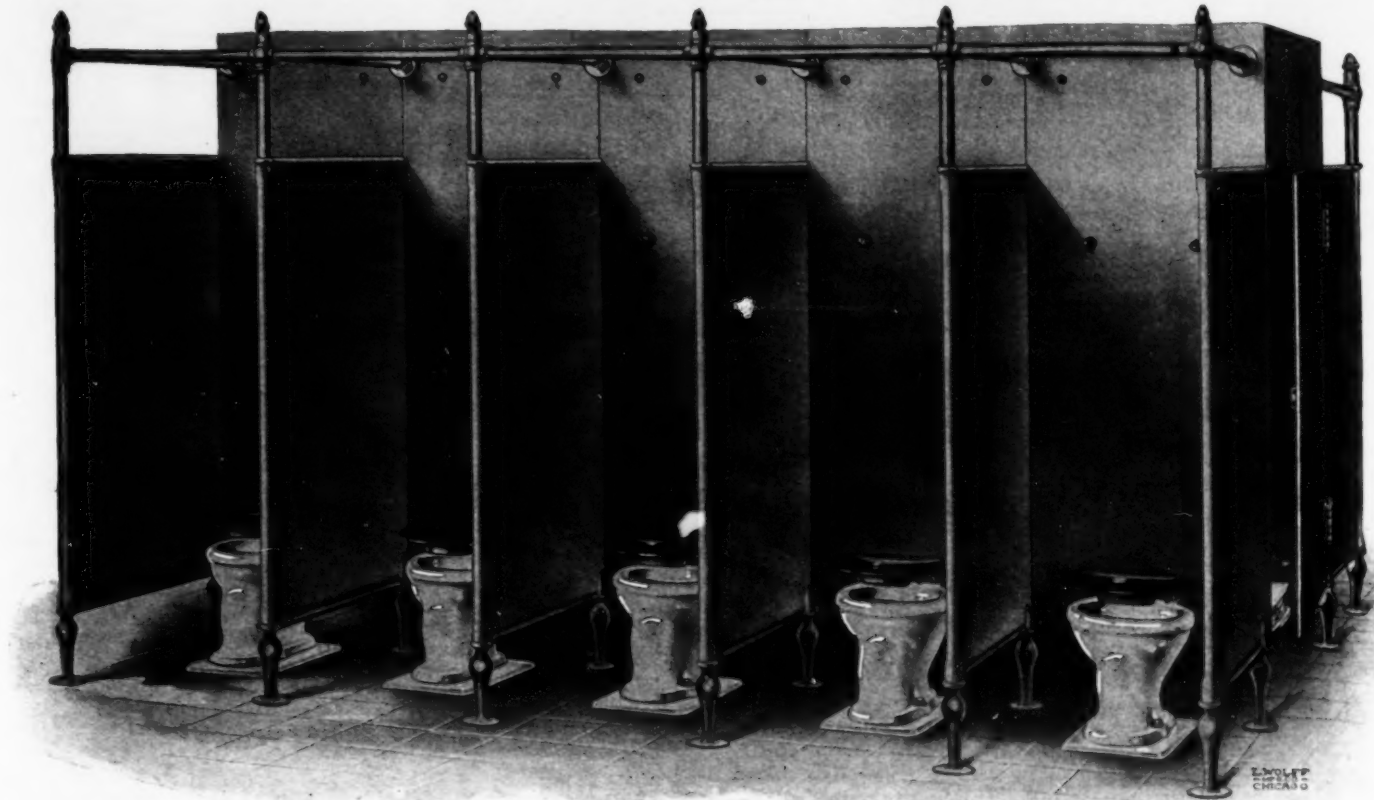
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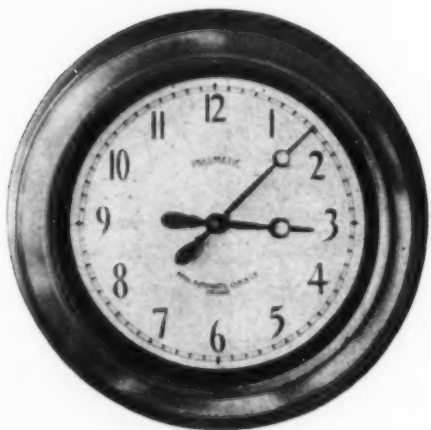
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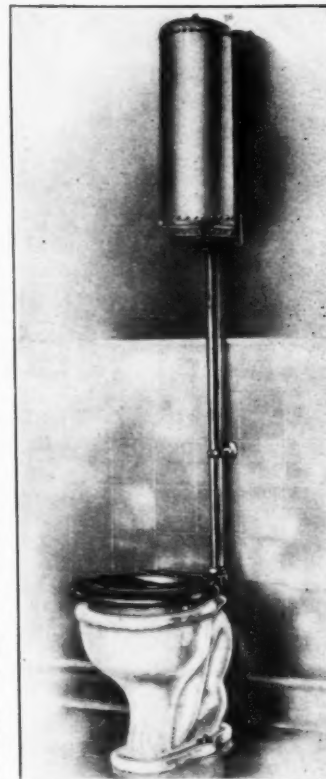
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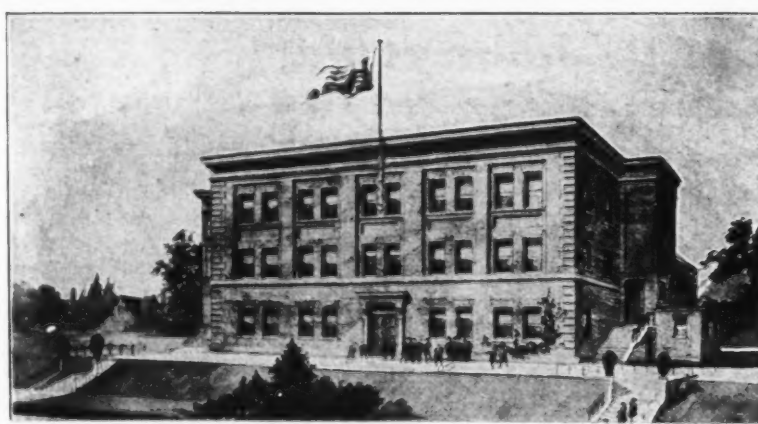
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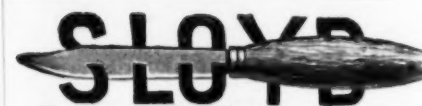
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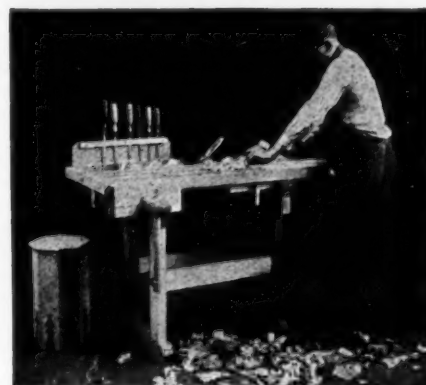
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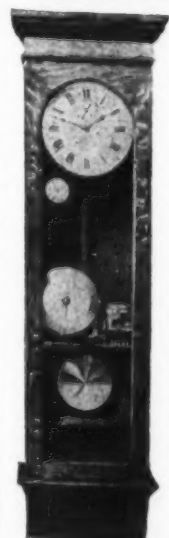
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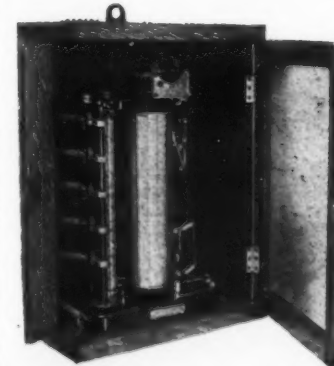
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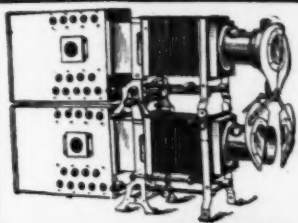
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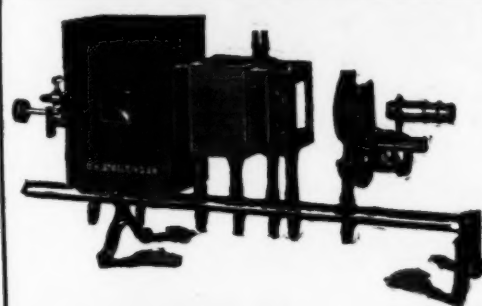
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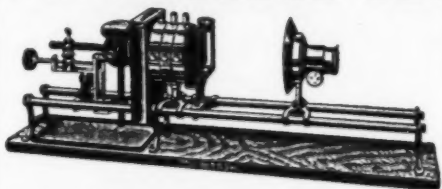
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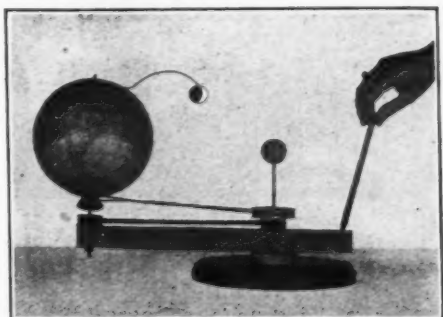
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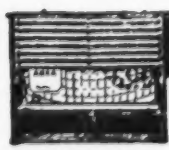
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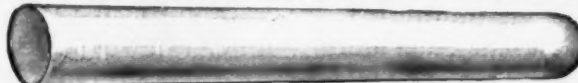
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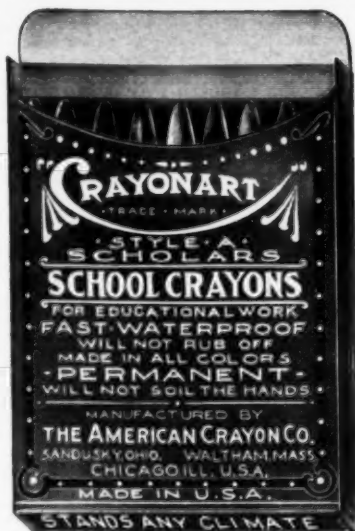
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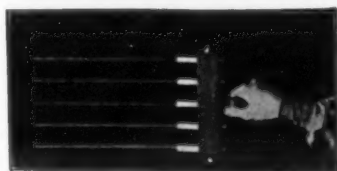
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A LESSON IN PATRIOTISM.



Photo by J. E. Hare.

President Taft in the speakers' stand at Garfield Park, Chicago, and a few of the 165,000 public school children who lined up to greet him.

School Law.

School Districts.

The revised statutes of Texas for 1895, article 3938, as amended by act June 6, 1899 (Gen. Laws 1899, p. 321, c. 183), provide that the county commissioners' courts of organized counties which are not subdivided shall subdivide their counties into convenient school districts, except counties under the community system, but that when districts are once established they shall not be changed, except upon petition of patrons desiring to be transferred from one district to another, when a change may be made as requested, upon a certain showing. The act also empowers the commissioners' court to correct errors in district lines, and complete them when defective. *Held*, that the act applies to a district as formed after the addition of territory under the statute, and hence, after such a change of boundaries, the county commissioners' court has no power to revoke its former order making the change, without observing the prescribed procedure, in the absence of any error or defect in the lines as formerly fixed.—Gabbart vs. Johnson.

Where there is a city or town in any county which maintains a separate system of public schools, the balance of the county outside of such city or town, by the provisions of Kentucky laws of 1909, section 4426a, becomes a school district.—Taylor vs. Sparks, Ky.

Under the Wyoming laws of 1899, section 535 et seq., relating to district meetings of school districts, the term "district meetings" means a coming together, an assembling of the electors in a body at a stated time and place.—Parker vs. School Dist. No. 4 of Sweetwater County, Wyo.

The general election laws of the state as to the time of opening and closing the polls have no application to school district meetings.—Parker vs. School Dist. No. 4 of Sweetwater County, Wyo.

School Directors: Powers and Duties.

The office of school director does not become vacant by mere neglect of or failure to perform the duties of the office, though the statute imposes a penalty therefor.—School Dist. No. 54 vs. Garrison, Ark.

The incumbent of the office of school director may abandon the office and create a vacancy, and such abandonment may occur through resignation or removal from the district or non-user, but non-user or neglect of duty or removal from the district, or neglect of duty or removal from the district, to amount to a vacation of the office, must be total and complete, and of such a nature as to make it permanent, and under circumstances clearly indicating absolute relinquishment of the office; otherwise there must be a judicial determination of the vacancy of the office before it can be so declared.—School Dist. No. 54 vs. Garrison, Ark.

A vacancy in the office of school director exists only when there is no person authorized by the law to perform the duties of the office and there is such authorized person so long as the duly elected officer does not remove permanently from the district and has not intentionally and absolutely relinquished the office, and the fact that the other directors may have claimed that the office is vacant is insufficient.—School Dist. No. 54 vs. Garrison, Ark.

A school director who temporarily moved out of the district to cultivate a crop a mile or two away, and who did not intend that the removal should be permanent, and who still owned property in the district, and who in four or five months returned to the district, did not vacate the office, though while out of the district he

did not exercise any of the duties thereof, especially where he did not state to any one that he was not a director, and where no election was called to fill any alleged vacancy.—School Dist. No. 54 vs. Garrison, Ark.

The acts of a de facto school director in executing contracts with third persons are binding on the districts.—School Dist. No. 54 vs. Garrison, Ark.

A director must be given notice of a special meeting of the directors, and, when that is not done, a contract entered into at such meeting is invalid.—School Dist. No. 54 vs. Garrison, Ark.

Where there are only two directors of a school district, such two may make a valid contract for the district.—School Dist. No. 54 vs. Garrison, Ark.

The directors of a school district may enter into a contract with a third person to begin in the future, and after the expiration of the term of some of the directors.—School Dist. No. 54 vs. Garrison, Ark.

School Board Elections.

The Kentucky statutes of 1909, section 4458, provide that elections to take the sense of the voters as to whether or not bonds should be issued to provide suitable school buildings in a district shall be ordered by the trustees of the district, who shall give notice of the election. Section 4458 provides that notice of election to raise taxes for the use of such districts shall be signed by the county school superintendent and by a majority of the district trustees. *Held*, that the provisions of section 4458 did not relate to or affect the provisions of section 4481 so as to require the notice of an election held under the latter statute to be signed by the county superintendent.—Taylor vs. Sparks, Ky.

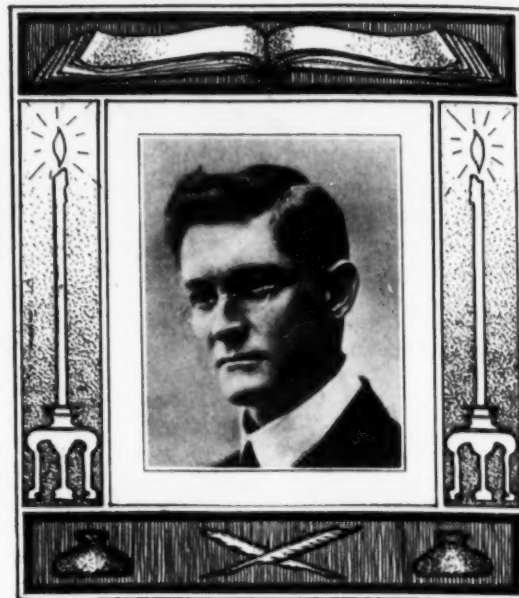
The Kentucky laws of 1909, section 4458, provide that elections in school districts shall be held in the schoolhouse. Section 4481, relating to elections to determine whether bonds shall be issued, does not provide where the election is to be held, but requires the notice to fix the time and place. *Held*, that an election held under section 4481 was not invalid because held in the courthouse, where the notice fixed that as the place of election, it not being shown that any citizen was prevented from voting by want of knowledge of the place of the election, and it appearing that there were 350 votes actually polled out of a possible 400.—Taylor vs. Sparks, Ky.

Building Contracts.

Since claimants for labor and materials furnished to a contractor for a school district building are simple contract creditors and have no lien upon the fund which the district owes the contractor, suits by them against the district and the contractor to apply the funds to the payment of their debts are governed by the law governing the priority of claims of simple contract creditors, and claimants who first file their suits and obtain service are entitled to a preference over claimants subsequently filing suits and obtaining service.—Plummer & Davis vs. School Dist. No. 1 of Marianna, Ark.

Since public policy forbids liens on public buildings for labor and materials, claimants for labor and materials furnished a contractor constructing a building for a school district can not have liens declared, and they can only reach the fund which the district owes the contractor by resorting to the remedies common to creditors for the collection of their debts.—Plummer & Davis vs. School Dist. No. 1 of Marianna, Ark.

The bill alleged that defendant advised complainant school corporation that he would prepare plans for remodeling a school building for \$100, and afterward submitted a written proposition, agreeing to prepare the plans and superintend the construction of the building for a certain per cent of its cost, \$100 to be paid when the plans were complete and the balance as the work progressed and to change the plans without extra cost if necessary; that defendant stated orally when the proposition was submitted that his charge for the plans, if the building was not reconstructed, would be \$100, and, relying upon his statement, the board



THOMAS PEARSE BAILEY,
Superintendent of Schools,
Memphis, Tenn.

adopted his plans and his proposition was not accepted, and he was paid \$100 for his plans; that the building was not remodeled, but a new one was constructed by the plans of another architect, but defendant presented a bill for \$770 for plans for remodeling the building and recovered a verdict. *Held*, that the bill did not make out a case for the reformation of the contract on the ground of mistake.—Public Schools of Wyandotte vs. Harding, 121 N. W. 296 (Mich. 1909).

School Taxes.

Where the act authorizing a school tax is void for failure to limit the amount of tax, as required by the constitution, valid bonds cannot be issued in anticipation of a levy of taxes under the act.—Patching vs. Hutchinson, Tex.

Under the express provisions of Kentucky statutes of section 4458 widows and spinsters who are taxpayers of common school districts are entitled to vote in elections to raise taxes for the use of such districts.—Taylor vs. Sparks, Ky.

Compulsory Education and Vaccination.

The revised statutes of Missouri for 1899, section 9759, vest the government of the schools in a district in a board of directors of three members and section 9764 authorizes the board to make all needful rules and regulations for the government of the schools. *Held*, that such board could make and enforce rules excluding from school all children who had not been externally vaccinated, whenever smallpox epidemic either existed or was threatened in the district.—State ex rel. O'Bannon vs. Cole, Mo.

The compulsory school law (laws 1905, p. 146), sections 9982(1), 9982(9), requiring school attendance by children of school age, did not preclude the school directors of the district from requiring during a smallpox epidemic, existing or threatened, that no child not externally vaccinated should be permitted to attend school.—State ex rel. O'Bannon vs. Cole, Mo.

The Missouri laws of 1899, section 9765, prohibit children affected with a contagious or infectious disease, or one exposed thereto and liable to transmit the same, from attending schools, and provides that the child may be examined by a physician and excluded so long as there is danger of transmitting the disease, declaring that the parents' refusal to permit the child to be examined shall justify its exclusion, and if the parent or guardian persists in sending a child to school he shall be guilty of a misdemeanor. *Held*, that such section applied to children actually diseased or exposed to contagious or infectious diseases and did not prevent a board of school directors from forbidding attendance of non-vaccinated children during an epidemic, existing or threatened, of smallpox.—State ex rel. O'Bannon vs. Cole, Mo.



Manual Training a Science



By FRANK HENRY SELDEN, State Normal School, Valley City, N. D.

It is natural for us, when the country is stirred by some new movement, to look for the cause. To find the cause and recognize it is not always an easy matter. It is usually found in a combination of conditions that differ in their relations from those ordinarily existing, and therefore requires a point of view difficult to assume by those not thoroughly experienced in the new field of observation. That the introduction of tool work into the common schools has brought under observation a line of work requiring a point of view not easily gained by those accustomed to pass judgment upon our school work is easily believed because of the greatly varying opinions and suggestions which are given out as a result of those observations. It does not seem probable that in this new line of work there is no basis on which a definite theory can be placed. The present difficulty appears to be the all but universal difficulty of those long accustomed to a certain line of investigation failing to grasp the whole body of facts bearing upon the new situation.

So universal is the necessity for a new point of observation in the proper study of great advances in civilization that, however paradoxical it may seem, it is, nevertheless, apt to be true that those having the most extensive training for the purpose of observing and judging of sociological conditions are unable to give to the community a full and correct statement of the value of any radically new movement in society. The work of the trained investigator appears to be to refine and diffuse after the radical changes have produced a sufficient body of material to make possible a new point of observation.

In no line of modern development is this more noticeable than in the movement for a department of school work capable of giving a larger value for those whose life's work is to be spent in some line of industry. If we will pause to consider what the new material is that is of necessity being brought into our schools as a result of this demand, we will have no reason to question this statement.

Turn to any discussion of industrial education by those considered best able to lead in educational investigation and we find the point of view substantially the same. Trained to a degree that should give them large confidence in their powers, rightly credited by all with a breadth of learning, strong in power to think out to infinitesimal distinctions along lines with which they are familiar, it is not surprising that they do not realize, nor should we censure them for not realizing, that they have lived and thought apart from a vast body of learning which is capable of supplying material for not only an education for industry, but also material for liberal culture.

To those that have lived long in the realm of books, without dealing with any line of thought to be tested out by actual working of solid materials, there is another world about them unseen and unfelt, and neither considered in their observations and search for the cause of present unrest, nor in shaping their plans for the uplift of the industrial classes.

To make this *other world* real to those who hold in their hands the destiny of education is the burden of those who live in this other world,

and whose lives have been such as to give them a view of the intellectual side of modern industry.

"We learn to do by doing," said by some one, and quoted by the millions, has so impressed itself upon this generation as to be taken as a fact, though, as ordinarily interpreted, it is little else than fiction.

For untold centuries the world progressed, if we can call that slow and tedious advance in mechanical work progression, by doing; and, had not the increasing necessities of the increased density of population and the comparing of methods as a result of the intermingling of nationalities caused a change from the learning to do by doing to the learning to do by *thinking*, we would yet be using the mechanical appliances of medieval civilization. From the doing and doing over and over to get the "hack" or learn to imitate, the industrial advance has led to the thinking out of principles making the doing not the learning, but the test of the thinking which has preceded. This gives a foundation for growth; for there is no limit to the mind's activity. The handing down from generation to generation of tool processes or trade manipulations gradually ceases to be a factor and more and more each generation fits for work by the applying of principles, disregarding the details of imitation. This gives freedom and the era of invention is a necessary consequence. No child feels obliged to do just as his parent did. He has learned a principle on which the operation or process is based and feels free to make use of any muscular movement that does not do violence to the principle. The working out of these principles also eliminates many operations of the ancient craftsman because they are not in harmony with established law.

The development of the science of working solid materials not only gives freedom to use a large variety of processes or methods, but also is quite as useful in eliminating many methods of work which have come down to us by rule

of thumb or blind imitation, and which are neither efficient nor intellectual.

This not only leads to progress in industry, but also to the building up of an intellectual side to industrial work. It is because of this change from imitative methods to those resulting from a study of the underlying principles of industrial work that modern industry has made so rapid an advance, has become so intensive, and has made the better classes of workmen intelligent members of society. It is this side of the work that gives to it its place in the schools, and it is the failing to recognize this that makes the present discussion of manual training lead into so many vagaries and the work of so many schools fail to produce the desired results in the industrial efficiency of their pupils.

Observing the physical side of the work, and not having gone deeply into the study of the science underlying industrial pursuits, those who are in a position to do much good fail to give material aid because from their position of observation they are unable to see that there is a science underlying the working of solid materials, a science which, though in its first stages of development, is yet sufficiently well defined to supply the material for our school shops, or that part of our school work leading to the industries.

When this fact is realized and we proceed to base our school shop work on science instead of tool processes, history, art, or what-not, there will be no call for specialization in the grades, and possibly not in the high school, nor will there be any need to separate those expecting to enter industrial lines from those fitting for the professions, because the study of the science of working solid materials is quite as valuable a part of a liberal education as the study of any other science. Nor will there be any necessity for the introduction of matter foreign to the study of this science to give either interest or cultural value. All attempts to make of the school shop a study of things other than the science of working solid materials are abortive and an acknowledgment that the real subject matter has been overlooked.

Our present duty is to all pull together to gather the necessary material for the thorough establishing of this science, to eliminate the unscientific, the work that is based upon imitation, and the work that leads only to disconnected facts or details, to try thoroughly each statement of principle as to its truth, and then as to its use as a part of a broad foundation for industrial work.

By pursuing this course we can soon have such a valuable science as a basis for all industrial lines that the pupil, on leaving school, will be as reasonably assured of success in any industry as he now is in other lines. He will not only be free to enter any one of many occupations, but also will have a breadth of foundation that will serve him well in case at some time circumstances necessitate his changing from his chosen line to a widely differing one.

Viewed as a part of a liberal education, manual training is that branch of school work in which the mental activity of the pupil is tested by work upon solid materials.

THE TEACHER'S TASK

The teacher's task is to be such a person as good people want their children to become; to love learning and virtue and to lure boys and girls to love them; to be master of what he teaches, to make his pupils desire to master what they study, and to show them how they may master it; to make the school a place which those who go there will hold in loving memory; to be a check upon the forward, an encouragement to the timid, a comforter to the distressed, a stay to the weak, a spur to the sluggish and an inspiration to all.

Clinton, Mo. ARTHUR LEE.

Among Boards of Education

Radical changes in the school organization are proposed by civic societies of Greater New York City who are interesting themselves in the improvement of the city charter. It is proposed that the school board be cut down from forty-six to fifteen members, that the elementary school course be reduced to six years and the high school course lengthened correspondingly to six years, that women teachers be given equal salaries with the men, etc.

Omaha, Neb. The school board has just put into operation a pension system for teachers who have been in service thirty-five years or more. Four teachers have been retired with an annuity of \$500 each. The pension fund is made up of one per cent. assessments on the salaries of all the instructors, to which is added annually a sum from the school funds equal to one and one-half times as much as is contributed by the teachers.

Dr. H. C. Bumpus, director of the American Museum of Natural History, is a member of the New Rochelle board of education. Dr. Bumpus has just received from Clark University the degree of doctor of laws. He was the first graduate of Clark University to receive the degree of doctor of philosophy from the institution.

Topeka, Kans. Sanitary drinking fountains will be shortly placed in all public school buildings. The board is acting under a new law forbidding the use of common drinking cups.

An agitation has been begun in Iowa for the publication of full and complete reports of all the meetings of school boards in the local press. The complaint is made in all parts of the state that the laws do not compel boards to publish a record of their actions and the taxpayer has no means of knowing how or where the money is being spent. The cost of maintaining the schools is in most communities the largest single item of expense for any department. In Des Moines the school board budget represents a greater amount than that of the entire city government. At the present time the publication of the proceedings of county boards of control and of city councils is provided by law.

Chicago, Ill. To protect the schools from discrimination in prices, the board has inserted the following clause in all new contracts for text books: "Should this book be sold or offered for sale in other cities or states at a lower price, this contract may be considered void, if the board of education so desires; or, if another edition of this book is sold at a lower price elsewhere, the board of education will be given the right to choose between the two editions."

New Orleans, La. The public night school sessions opened on Oct. 4 in eight buildings. The courses are about the same as last year, embracing English, grammar, language, reading, spelling, arithmetic, penmanship, history and geography, with one school including mechanical drawing, and another stenography, typewriting and bookkeeping.

Oakland, Cal. A committee has been appointed by the president of the school board to devise a method of selecting teachers. It is desired to eliminate all personal and political influence and to make merit the only factor determining the choice of instructors.

Dr. Benjamin E. Smith, editor-in-chief of the Century Dictionary, is a member of the board of education of New Rochelle, N. Y.

Peabody, Mass. The school committee has limited the attendance of first grade pupils to one session daily during the first term. One-half of each class will attend in the morning, the other half in the afternoon. Every four weeks the children will alternate between the sessions. It is held that the plan, by reducing the number of children under a teacher, will make possible more individual work and long "busy work" periods will be eliminated.

Columbia, S. C. The South Carolina state board of education has voted to grant students of all high schools under its jurisdiction, who receive fourteen credits, a diploma signed by the chairman, secretary and high school inspector. The board has for some time worked to standardize the work of the high schools in accordance with the requirements of the Association of Southern Colleges. These demand fourteen units for admission to their freshmen classes.

The graduate of any high school can, under the board's policy, secure the state board diploma provided the school actually does fourteen units of high school work. It is not required that it receive state aid, for a number of the best city schools in the state are operating under special acts of the general assembly and not under the general school law. It will be interesting to see how many secondary schools will meet the requirements.

Ossian Lang has announced his educational lectures for the season of 1909-1910. The titles cover eleven live questions.

A special committee has been appointed by the general committee on school program of the Louisiana state teachers' association to seek information and suggest the best plans for selecting school text books. The committee consists of Superintendent L. M. Favrot of St. Martinsville, and Reberta Newell of Natchitoches. The committee will investigate methods in vogue in all the states. It is expected that the conclusions arrived at will be presented to the legislature for enactment into law.

Columbus, O. The board of education has changed the school year to include forty weeks, beginning the first Tuesday after the first Monday in September. The school year is to be broken into two terms and includes no spring vacation.

Chicago, Ill. In thirty-three public schools night classes open Oct. 18 for a term of eight weeks. In seven buildings high school subjects will be taught, in addition to the elementary branches. These schools will be devoted to industrial subjects only for artisans and in one commercial branches will be offered. An appropriation exceeding \$78,000 is available for instruction and supplies.

The salaries of teachers of the primary grades of the public schools of New Rochelle, N. Y., have been increased to \$900 a year.

Detroit, Mich. Under authority of a newly enacted law the board of health is excluding from the public schools all children affected with "open" tuberculosis. "Closed" cases are also being rejected where it is believed to be for the best interests of the child. A special school with a modified course of study is planned.

Medical inspection has been authorized in the public schools of Evansville, Ind. Superintendent F. W. Cooley has outlined the plan, which provides that one physician be assigned

to each building. Daily calls to examine suspected cases will be required. An annual general examination of all children will be held.

Mr. Charles C. Martin has been re-elected as secretary of the school board of Louisville, Ky.

Austin, Tex. The department of education recently completed tabulation of the scholastic census for the year, the tabulations showing there are 949,006 school children in Texas between the ages of seven and seventeen. There are 386,332 white male children and 370,488 female white school children, making a total of 756,770 white school children. There are 95,725 male negro school children and 97,510 females, making a total of 192,236 colored school children. According to the apportionment of the state board of education the districts and counties wherein these children are reported will receive \$6.25 per capita as an apportionment for the coming year, the money to be used in the maintenance of the public schools.

Convention of the Society for Promotion of Industrial Education.

December 1st, 2d and 3d have been selected by the National Society for the Promotion of Industrial Education as the days upon which to hold their annual convention. The place selected is Milwaukee.

Every effort is being made to secure some of the most distinguished leaders in the industrial, legislative and educational world for addresses and papers to be read at the convention.

An exhibition of trade school work from all over the United States will be one of the features of the convention.

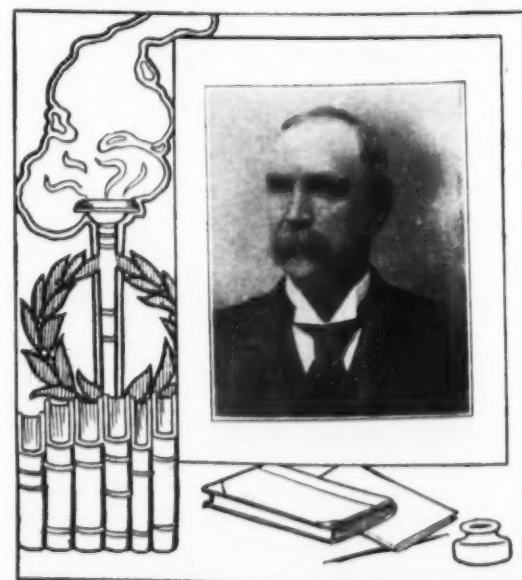
State branches of the society have increased in number during the past year. Massachusetts and New York alone have more than 200 members each enrolled on their lists.

The society has just issued its Bulletin No. 9, which contains all the addresses delivered at the last annual convention held in Atlanta.

Secretary Twenty Years.

We present on this page a portrait of Mr. T. T. Rodes, who has the distinction of having served as secretary of the school board at Paris, Mo., during a period of twenty years.

Mr. Rodes is a native of Ralls county, Mo., and received his education in the district schools and in Van Rensselaer academy. In 1868 he was a member of the state legislature and in 1896 was elected prosecuting attorney of Monroe county. He served two terms. Mr. Rodes is, in point of service, the oldest school official in his native state.



MR. T. T. RODES
Paris, Mo.

FUNCTION OF SCHOOL BOARDS

By CECIL W. MARK, Ex-President Board of Education, San Francisco, Cal.

It is my desire that this somewhat disconnected paper be more of a discussion of the general subject than a formal presentation.

In our form of government it is a safe conclusion to draw that all functions of school boards must not be too far removed from the people. In other words, boards cannot go too far beyond the general public opinion in their work and general educational progress. This is true in all legislative and administrative functions, for the people are the source of power.

Boards should be simply the representatives of the people in school affairs. In many cities and communities the boards mix in all the petty politics, such as trading teachers, janitorial and other positions for favors in other departments of the local government. This is one of the greatest evils today in school administration. Also, contracts are awarded, architects are favored, inferior supplies are purchased; in fact, many more serious things are done to curry favor with some political or personal friend. This bartering in school affairs is absolutely criminal, and can only be stopped by wise and judicious legislation. Even this cannot be accomplished unless the personnel of the school boards all over our country be raised to a higher standard. Many seek position on the school board not for the good they can do their community, but for their own personal advantage. Professional men, all kinds of contractors and mechanics, seek such places for prestige, power and prominence, thinking that by so doing business will come their way.

Old and New Duties.

School boards have many old functions which should be eradicated and many new ones which, introduced, would greatly improve our school conditions. Would it not be possible for some commission with power to act to formulate a working plan for all city school boards? Conditions differ in various sections of our country, hence nationalization would not produce the best system. This might be done without nationalizing our school system.

Our people all believe in local school administration, and we can never hope to have a uniform educational plan for our whole country; but certain basic functions could be laid down for all school boards to follow. It might be well to present a few thoughts which may be new, or may be old in some places, but which the great majority of cities do not follow.

Given an ideal school board in a fairly ideal community, I would favor no legislation whatever, but would give it absolute control. Let the board, as occasion arises, act as they see fit, but always keeping in mind the highest welfare of the children of the locality. Many advantages to children have been lost on account of restrictive legislation.

Not being able to find in our country ideal conditions, but facing problems as they exist, we must restrict by wise directive legislation. Wherever power is given, let it be very definite, so that there can be no shirking of responsibility; wherever duties are to be performed, let them be centralized and located at once; no passing of responsibility, no shifting of duties, and no weak and indecisive actions permitted.

Selection of Executive Officers.

First—The first and most important function is the selection of the administrator or the superintendent of schools.

The board should by law be given full power to select its executive head, not for a limited number of years, as is the prevailing custom,

but during good and efficient service. His power should be defined by law and not delegated to him by the school authorities. This delegation of power simply by rules and regulation of the educational boards has done much mischief and has hindered the school progress of many cities. Experience has taught that delegated power is worthless on account of the whims, the personality and the changing conditions when men of affairs are associated together. A superintendent, on occasions, simply becomes a tool or is forced to resign. A man loves independence of action, for it broadens his horizon and causes him to arise to his great and noble work. All assistant superintendents should be absolutely selected by the executive head and their powers delegated to them by the appointive power.

Second—The second function is the selection, during competency, honesty and tact, of a business manager.

In large cities he should be recognized as a man of large affairs, with a large salary fixed by law, so no disgruntled member of the board could have him removed or have his salary reduced for not "standing in line."

In large cities the duties and responsibilities of the business manager should be fixed by law, but the responsibility of all his transactions should finally rest with the school board.

Third—Next to the importance of the selection of the superintendent is the selection of teachers.

The Teaching Force.

This function should not rest with the school board, but with the superintendent. Many places try this in a half-hearted way by requiring the board to approve his selections. This I do not favor, but by law would give the executive head this power of selection and hold him directly responsible.

A plan should be adopted by city charter, or legislative enactment—as near an ideal system as could be devised—governing and controlling the superintendent as to the manner in which he selects his teachers. It is to be assumed that he must faithfully and honestly carry out the plan with high ideals and noble purpose. What a great work for him to perform! What a sacred duty is his! He must arise to this great responsibility or vacate his office.

It is not for this paper to discuss any plan for selection of teachers, as this function does not, in my opinion, belong to the scope of this theme.

Fourth—Nothing will do more harm to the teaching force, nothing will destroy honest effort, efficiency and noble endeavor more than the promotion of the unworthy over the fairly competent and average teacher. This function of promotion, which is now entirely in the hands of the board, and which has worked such havoc in many communities of our country, should be taken away. Just to whom this should be given, just how it should be done, is a very serious problem, and one in which I hesitate to offer any suggestion.

In order to be consistent in this discussion this most important work should be given to the superintendent. A plan should be worked out after consulting with some of the principals having high ideals. The scheme could then be adopted by the board, and after trial and experience enacted in a law or the city charter, so that no subsequent board could radically change the system. Teachers all like fair play, and when they realize that hard work, honest effort and conscientious duty will find reward, then will the force look steadily upward and onward.

Destroy unworthy promotions in a school system and you destroy the cancerous growth which is now eating at the vitals of the educational progress of many cities.

Fifth—Equally important with promotion is the dismissal of teachers. This function should rest entirely with the board, after charges have been filed and presented by the superintendent. No teacher should be dismissed without just cause. In case of retirement with an annuity, the board should have power to retire absolutely, provided the annuity has been fixed by law. All transfers, the changing from grade to grade, should be absolutely left with the superintendent. The approval of the board should not be required.

Miscellaneous Duties.

Sixth—The awarding of all contracts for current supplies and the erection of buildings should be a function of the school board. In some cities these responsibilities are distributed to their legislative commissions, which is bad, for here again responsibility is divided. In large cities the business manager should have power to select architects and all assistants, subject to approval by the board. No school building should be finally erected without the approval of the superintendent of schools. The tendency of all boards is to create many departments, thus increasing the cost of administration and destroying effectiveness.

Seventh—In recent years many worthy movements have been carried into effect for the general welfare of the child. For some unaccountable reason these worthy objects have been taken from the school administration and placed under some high sounding commission or some new titled office.

It should be the function of school boards to have under their control all playgrounds, so that intelligent direction could lead from the classroom to the playground. Play could be made an important part of our regular school system, but to place grounds under the park or playground commission is absolutely wrong and opposed to all educational progress.

Reform schools of all kinds dealing with delinquents and defectives should be placed in the hands of local school boards or under the direction of state boards of education.

The enforcement of compulsory education, even including the juvenile court, should be a function of the board of education. Child labor is surely an educational matter and should be so considered and placed. In fact, all the things connected with child life should be correlated and connected together. The people should awaken to their responsibility and take the child and give him a well directed training under one general management, under one scheme of education, and a well directed plan looking toward the future welfare of the state and nation.

In conclusion, school boards should be small. elected (if possible, at a special election). Have a few meetings, simply to legislate on important duties. In fact, if a comprehensive scheme based on this discussion were planned, the board would become a legislative body of the municipality. We need reform based on broad and general principles, in order to perfect our city school systems and give to our children what they richly deserve.

Chattanooga, Tenn. The salary schedule has been so amended by the board as to increase the maximum salary of principals in buildings of twenty rooms to \$175 per month. In the past the highest figure has been \$150.



Art Education.

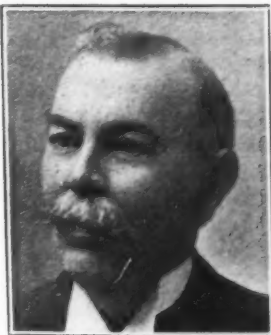
The federal government provides no part of the upward of \$11,500,000 expended yearly for art instruction in this country, as outlined in the recent statistical report of Henry T. Bailey to the United States bureau of education, but Massachusetts is a leader in this branch of education.

Drawing is now required by legislative enactment as a part of the course of study in twelve of the forty-eight states. It is approved by the state authorities and promoted by means of instruction in state normal schools, in summer schools, and in state and county institutions, by teachers' examinations, by official courses, and by school documents in thirty-one others, making a total of forty-three states actively interested in the subject. In ten of these states scholarships are maintained in art educational institutions, other than normal schools, at an annual expenditure of more than \$100,000; and in eighteen of these drawing and various handicrafts are included in the courses in reformatory institutions at an estimated cost of about \$40,000 per year.

Two of the states, Massachusetts and New York, says Mr. Bailey, employ state supervisors of art instruction at a yearly outlay of \$3,000 each. These men are employed as agents to promote art instruction within their respective commonwealths. They visit the cities and towns, inspect schools, discuss methods, advise courses of study, supervise instruction in drawing and handicraft in common schools, gather information relative to their specialty and publish annual reports under the direction of the state boards of education.

"One state," he continues, "Massachusetts, maintains a state normal art school at an expense of about \$34,000. This school was established by act of legislature in 1873. It is the alma mater not only of some of the foremost men in art education and in the artistic professions, but in a very real sense of many of the foremost art educational institutions of the United States."

Mr. Bailey also tells about the growth of public interest in art and of co-operative work among school children. In the latter branch Massachusetts again took the lead in the movement for school room decoration, led by Charles C. Perkins and John D. Philbrick, as far back as 1870, which, however, attracted little attention until 1892, when Ross Turner, "the father of schoolroom decoration," began his campaign of education and the movement spread rapidly throughout the entire country.



W. H. BROWNSON
Portland, Me.
Died September 6th.



WALTER H. SMALL
Providence, R. I.
Died September 15th.

A Function of the County Superintendent.

A professional function to be considered of great importance by the county superintendent relates to the selection of teachers. After all, it is the teachers that are to educate the children. The vast machinery of the public school system has been organized for but one purpose—to furnish to each child in the state a competent, faithful teacher. It is for this purpose that buildings, comfortable and convenient, are erected; that books, apparatus, libraries, museums and other forms of equipment are supplied, and that school boards and superintendents are given authority in the management and supervision of schools. Now, the selection of the teacher, being of primary importance, should be controlled by some individual or individuals who have accurate knowledge of the necessary professional qualification. It is a far more difficult thing to decide upon the competency of the teacher than upon the worth of a domestic animal, and yet what man is there who, if he has not devoted considerable time to the scientific study of the anatomy of the horse, for example, would be willing to pass expert judgment upon the animal or would be willing to entertain the idea of swapping horses with a professional horse-trader?

It would possibly not be advisable for the county superintendent to select outright all the teachers to work under his supervision; but certainly the several school boards in his county should look to him for advice in this matter, and I believe it would be in the nature of sound economy and sound morals if each board would request that the superintendent nominate the teachers. I believe that here is an opportunity for the dissemination of some wholesome truths to members of school boards in urban, as well as in rural, communities. The schools will be increased immeasurably in their efficiency when our school boards everywhere recognize the fact that the selection of teachers falls in the realm of the professional expert, and when they are willing, and when they even demand, that this professional service be rendered by the professional expert.—W. S. Sutton, University of Texas.

BUSY SUPERINTENDENTS.

Merrill, Wis. A commercial course has been introduced in the high school.

William H. Brownson, for five years superintendent of schools at Portland, Me., died Sept. 6 after an illness of seven months. Mr. Brownson was a native of Maine and at the time of his death was fifty-five years of age. He was for many years a newspaper man and served in various editorial capacities on the Portland Advertiser. Previous to accepting the superintendency he was for fourteen years a member of the local school committee.

Roswell, N. M. The school board has authorized Supt. M. H. Brasher to purchase all supplies used during the remainder of the school year, without further authority. The action of the board was taken in the interest of expediency and efficiency.

Dr. Albert Leonard, superintendent of schools at New Rochelle, N. Y., received the degree of doctor of letters from the University of Ohio, at the commencement in June.

W. J. Sutherland of St. Paul has been chosen president of the state normal school at Platteville, Wis., in place of John W. Livingston, recently resigned.

Mr. Sutherland is a graduate of the University of Wisconsin, class of '02—since a graduate student, taking his M. A. degree within the past year. Since his graduation in 1902, he has engaged in teaching, the past year being principal of the training schools of St. Paul.



FRANK HENRY SELDEN
Director of Manual Training, State Normal School,
Valley City, N. D.

A Pioneer in Manual Training.

This month we present a picture of one of the pioneers in manual training work. Few of those engaged in this line have to their credit actual teaching of school woodwork as early as 1889. That Mr. Selden has not sooner come into notice as an aggressive instructor is due to the fact that after a brief period of teaching he donned the cap and overalls for the purpose of graduating from the school of experience in industrial work. Probably no other instructor has taken so complete and thorough a course in industry as has the subject of this sketch.

It is not a case of having worked at various trades, but of a deliberate and carefully planned course in practical mechanics paralleled throughout with thorough study of books and a good deal of work in teaching during off-hours and evenings.

With this as a foundation, preceded by a normal school course at Edinboro, Pa., while Prof. J. A. Cooper was giving to that school a reputation for thorough, broad and aggressive work, it is not surprising that Mr. Selden should now be one of the most aggressive as well as one of the most successful of manual training instructors.

For the past five years he has been at the University of Chicago teaching woodwork in the high school and also giving instruction to such school of education and university pupils as elected to take his work.

It is largely because of the success of this normal instruction that he has been called to Valley City, N. D., as director of manual training in the state normal school. Those who know of his very successful work with normal pupils will see for Valley City a bright future in the best line of manual training.

Naturally such a broad preparation leads to a broad knowledge of the work. A professional teacher, a thorough, practical workman and a broad minded, public spirited citizen, these qualities have resulted in the developing of a system of manual training strongly educational, combined with a practical value far in advance of that generally realized. On another page of this issue will be found an article from Mr. Selden on the latest developments in school shop work.

Melrose, Mass. The school board has elected John H. Anthony, superintendent of schools of Braintree, to fill the vacancy caused by the resignation of F. H. Nickerson.

Tacoma, Wash. The school board has discontinued the practice of selling text books to the pupils of the public schools. The local dealers will attend to the trade.

SCHOOL HYGIENE AND EFFICIENCY

ARTHUR E. BENNETT, Dean, Department of Pedagogy, Upper Iowa University, Fayette, Iowa

To foster child growth in accordance with the laws of his own nature; to treat him as a spiritual entity without sacrificing his physical health; to secure mental attainment through studies which furnish appropriate stimulus to thought; to develop all of the latent forces of body and of mind without the unnecessary loss of energy or the arrest or prematurity of development; to condition his school career so that his thinking is quickened and deepened and his vitality augmented—these are some of the elements to be considered as fundamental in the determination of school efficiency.

The school must deal with the child as it finds him. Its efficiency is largely conditioned by his individual coefficient, which involves forces largely beyond the sphere of its influence or control. Insufficient sleep, the lack of a wholesome dietary, poor clothing, unnatural home government and control, vicious community influences, weak antecedents and bad acquired characteristics conspire to predetermine a weakling, if not a defective.

The Scope of School Hygiene.

School hygiene seeks to unite nature and nurture in the task of conserving the child's powers for appropriate reactions in the development of his potentialities. This involves the consideration of both physical and mental hygiene. While they are correlates, both need to be studied that these relations may be harmoniously continued. The mind must not be forced at the expense of the vegetative processes. The hygiene of the body has received more attention than the hygiene of the mind. In a practical way it has been demonstrated that the efficiency of the school largely depends upon the character of the school plant. The location and the structure of the schoolhouse; its seating, heating, lighting, equipment, sanitation and care have received attention in our more progressive communities. This is one of the sanest steps of advancement in the educational progress of the last few years. Courses in school hygiene are being offered in teachers' colleges and the physical welfare of the child is receiving consideration commensurate to its demands.

These courses in hygiene should be so extended as to include the study of children's diseases; the symptoms, period of incubation, duration and methods of dealing with school infections; how to disinfect the buildings and what shall be done to prevent the spread of contagions should be given attention. Time also may be well spent in covering the field of the prevention of accidents and the application of first aids in injuries and accidents. In brief, all that bears upon the individual physical well being of the student, contributing toward his growth, development and resisting power belong to such courses. This implies, also, an acquaintance with the value and forms of physical training; the place of play, manual training, gymnastics and athletics in the field of education. Physical health is a good asset, and all that contributes toward the making of healthy animals out of the infants of the school world contributes toward efficiency.

There is a growing interest in the study of mental hygiene as an economic consideration in school work. This has been awakened by the study of overpressure and fatigue. These investigations have given us insight into the complexity of the problem involved in the education of a human being. Pedagogy has been advanced to a science. The child-study movement aroused interest everywhere, in that concrete thing, the child. Parents took up the discussion and teachers have profited in the criti-

cisms made upon the work of the school. It has been found that school conditions, rather than overstudy, are responsible for the child's diminishing returns. The steps are unhygienic conditions, overfatigue, strain, disease or organic defect.

The Teacher's Part.

Mental hygiene involves the hygienes of school control. The government may contribute toward thinking efficiency or it may retard, if not quite prevent, thinking. The factor which determines wholesomeness or unwholesomeness is the personality of the teacher. The worth of the school is measured by the worth of the teacher. His personality dominates its spirit, infusing buoyancy of tone and working interest, or reducing it to a monotonous routine of repressive exercises. The teacher will inspire or repress sooner than any other factor. If he be noisy, irritable, petulant, nagging, overbearing or mechanical the effect is at once apparent. His quality of voice, his mental, emotional and physical movements are interpreted and felt by the school. Dr. Ludwig's experiment in the Teachers' Training College at Dumstardt led him to conclude that it is not the instruction but the instructor which produces the burdening of a school hour.

An authority implied, not self-imposed; an attitude of expressive endeavor instead of repressive effort; the feeling of a friendly, sympathetic, personally interested helpfulness go far toward producing working effectiveness. The school is a working organism, and the less the friction between its parts, the greater its potentiality. It is a spiritual as well as a temporal democracy. Its government and control should be participative rather than prescribed. It must be set up in the hearts of the pupils. The child must be brought into right relations when it is found that he lacks the free, spontaneous attitude so essential for good work. In so doing the process should be orderly, naturally and sympathetically carried out. Threatening, the promised and postponed punishment add insult to injury, arousing base contemplations, poisoning the mind and the body, diverting channels of energy from work to worry, from the spirit which quickens into life to the spirit which rankles and kills. Working efficiency implies harmonious schoolroom activity.

The Arrangement of Studies.

School efficiency is promoted by the adaptation of the curriculum to the needs and capacity of the pupil. Causes of breakdown are found in the tendency to push children through a school prescription for which by nature and training they are mentally unfitted. The subject matter should be neither too hard nor too easy. The former confuses; the latter stultifies. But the mind should be stimulated to activity by the next appropriate object of thought, differing in content in that it should require effort, and yet so related to past thinking that useless confusion and expenditure of energy is not lost upon it. Activities should be exercised in the order of their development. In nerve impulse, from lower to higher levels of functioning; from fundamental to accessory, in motor activity; from sense perception through memory and imagination up to reason, in mentation. Genetically considered, the educational value of the curriculum depends upon the degree to which it ministers to the growth of the child's activities in keeping within the order of their evolution.

Maximal working effectiveness is secured through effort with interest. Imitation, interest and effort are the three impelling forces

which direct the energies in the successive stages of the maturing process. They are supplemental and complementary forces. Imitation without interest is blind, non-selective. Effort without interest is wasteful. Interest without effort is playful. Interested effort is economic efficiency.

The method of presentation, objective and illustrative, teaching, variety and zest in treatment, appropriate emotional stimulus, and the variation of the subjects of study to correspond with the seasonal changes are valuable considerations. A very important element in mental hygiene is the variation of the school exercises in the formulation of the daily program. It has been estimated that a saving of one school year in ten in the school life may be made by this means alone. The various systems of fatigue measurements, and the facts more or less observable in teaching experience, a study of the localization of cerebral functions and the daily rhythm, give evidence of the value of arranging an economic working relationship between the several subjects of study. Recuperative studies are those which go to extremes in activity. The stimulation of any given area tends to call into activity correlated areas. The teaching of algebra immediately after arithmetic stimulates the same cerebral activities, so that recovery from fatigue must come from involving extremes, such as going from mathematics to manual training, or from language training to drawing. Non-writing subjects should come between two which require written treatment. This prevents the overfatigue of local areas, allowing the ptomaines to become dissipated and eliminated before the organism suffers in consequence of the overtaxation. This fact constitutes one of the fundamental arguments in favor of motor activities in school education, not alone that mental and physical reactions are mutually educative, but that within normal limits they are mutually recuperative.

A study of the daily rhythm and of the fatigue content of the several subjects of study unites in placing the more difficult studies in the forenoon and the less difficult subjects in the afternoon. The vital processes reach their highest tonicity at about ten o'clock in the morning. Thereafter is a gradual decline, with a partial recovery at about four o'clock in the afternoon. When the child comes to school at nine in the morning his vital forces are on the ascendancy and at their best to undertake the more formal and exacting studies of the curriculum. From nine to eleven o'clock in the forenoon are the best working hours of the day. The formal study of grammar and arithmetic should come between these hours from the fact that they are the least interesting *per se* and the mind is freer to direct the attention toward their mastery. This leaves the less fatiguing subjects to articulate with these, the more mechanical exercises following in the afternoon.

Examinations and Written Work.

School hygiene condemns the formal examination in the elementary school. Tests as a part of the regular school exercises are desirable and necessary. But there is no exercise so oppressive and exacting as the formal test. The worry of anticipation and the consequent cramming and restlessness are devitalizing in the extreme. Promotions may be made upon criteria just as valid and reliable and not so taxing upon the pupil. Emotional natures are wrought to such a pitch as to incapacitate for thinking. It is only the child of extraordinary ability that is not overdepressed by such exact-

(Concluded on Page 18)

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MOVEMENTS IN EDUCATION.

The immense wealth of educational literature and its technical nature bewilder and confuse the average school board member. Unless he has much patience and time, indeed, he rarely is able to formulate in his own mind the leading movements and tendencies for educational progress.

In this connection Dr. Elmer Ellsworth Brown has written an illuminating statement of the forces which are making American effort for education effective and which bid fair to leave an impress on the educational history of the nation. He divides these agencies into seven distinct movements:

First—The organization of special state education commissions. Eleven such commissions have come into existence and are at present engaged in the work of formulating recommendations for the revision of existing state education laws and in other ways contributing to the improvement of state education systems and studying the particular educational needs of particular localities.

Second—The public school campaign now in progress in most of the southern states. Commissioner Brown says of this campaign: "It is indeed one of the most striking educational movements of our time and is making a chapter of surpassing human interest in the history of American civilization."

Third—The tendency toward the standardization of American education. Many leaders in widely different fields have turned to the effort to raise the standards of their several kinds of education and to give those standards more exact definition. Certain practical needs rather than sheer devotion to intrinsic excellence have made this a real movement at this time.

Fourth—The conference of the chief school officers of the several states and territories held in Washington. This conference made clear the aim of the national office to accomplish its work through the rendering of assistance to the state offices and showed a strong disposition on the part of the state offices to strengthen the national office.

Fifth—The increased importance attached to the value of industrial education, which may be divided into three branches—agriculture, domestic economy and the trades—and the movement for getting appropriations to establish agricultural schools and courses.

Sixth—The organizing of voluntary educational associations and the interest taken by these associations in educational affairs and the practical good which they have accomplished. These associations have increased in number and importance and exert a growingly

great influence over educational matters. Particularly noticeable is their success in securing remedial legislation.

Seventh—The growing momentum of the movement for international education. While there have been a number of international educational congresses, more intimate international educational relationships are being formed by the interchange of teachers and pupils between universities and colleges of this country and those of other nations.

THE VALUE OF HEALTH AND LIFE.

The progress which science is making in the direction of insuring health and comfort and the prolongation of life is well illustrated in the efforts now being made by experts in the universities of the east.

They begin by estimating the dollars and cents value of health and the cost of disease, or rather preventable disease. Figuring the value of a normal span of life, attended by vigor and strength, the economic loss resulting from errors causing illness and death is appalling. The mere loss of time through enforced idleness, aside from the cost of hospital and medical service, based upon the average value of a human life, is a fabulous one. Prof. Irving Fisher of Yale estimates that the loss in New York City alone for a period of four years amounts to \$166,000,000. The human pain and suffering caused by illness and the sorrow caused by death are an inestimable factor.

The remedy is sought in the school and the home. Healthful housing and proper food are the basis of solution. Under the former come the problems of ventilation and clean air. The experts believe that the school is the center from which must radiate the knowledge and training in the things that make for health and for sanitary conditions.

The infusion of fresh air into a schoolhouse has been found to be insufficient. The removal of dangerous dust germs was a problem still to be met. But in recent years this problem, too, has been solved. American ingenuity and enterprise have evolved devices that remove all dust and filth, as well as the poisonous odors which lodge in walls and crevices, with marvelous effectiveness. It is an achievement which not only speaks well for the inventive genius of modern times, but augurs well for the health and vitality of future generations.

It is not within the province of this article to discuss in detail any of the devices now employed in the removal of dust, except perhaps to point out the fact that there are some excellent devices and many worthless ones. School authorities contemplating the installation of air cleaning devices—and there can be no doubt as to the desirability of doing so—should discriminate carefully between the cheap, clap-trap toys and the substantial apparatus. The former is cheap at the start and expensive in the end. The latter involves a larger investment at the start, but proves utilitarian and satisfactory in the end.

The fact that the experts in hygiene and sanitation are calling attention to the value of health and of human life, together with the further fact that the inventive mind has produced effective protective agencies, should prove both a gratifying and suggestive tendency to wide-awake and progressive school authorities.

THE SCHOOL BOOK BEGGAR.

A species of petty graft which obtains in school circles in a systematic and persistent manner is the free sample book nuisance. The professional beggars are rarely discussed in the educational press, yet they exist in numbers and manipulate their blackmailing operations so deftly as to baffle the shrewdest publisher and bookman. Many of these tireless book collectors can point to a valuable library of choice educational literature. Far more, however, can tell, if they would, of checks received for consignments of books shipped to the dealers.

The exceedingly liberal spirit of American publishers and the fierce rivalry between competing houses offer the book pirate ample opportunity to ply his craft. Every proposed change in books, every county institute and every convention permit him to secure his booty, through the old pretext of helping the publishers' books.

In Germany and other sections of Europe books sent to educational authorities for examination are either returned to the publisher, at the latter's expense, or they are paid for. The privilege of examining the book is its own reward. The system in vogue in this country is an expensive burden on the publisher, which, ultimately, falls upon the persons who buy school books—the parents of school children or, in free book communities, on the public. In any event, the free book grafter is a nuisance who ought to be discouraged, even though he cannot be punished.

THE PRIVATE COMMERCIAL SCHOOL.

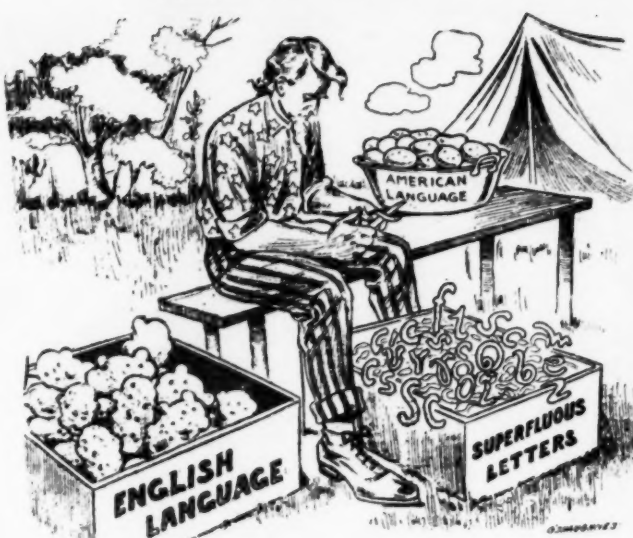
"Eighth grade graduates should, primarily, be encouraged to attend the high school. They should be shown the value of mental development and in every way impressed with the necessity of higher education. If after an honest endeavor the boy or girl is unwilling, or if poverty demands that the child join the bread-winners of the family, the reason for the existence of the business school may be explained and its place defined among the educational institutions of our American cities."

This was a sentiment recently expressed by the head of a properly called "business institute." It voiced the feelings of a small number of commercial school proprietors who appreciate keenly their own place and mission and who quietly are contributing valuable aid to the business life and activity of this country. It was a sentiment not overflowing with commercialism, selfishness or greed, but a sentiment unequivocally intended for the best interest of the American school children.

Unfortunately this sentiment does not prevail among all commercial schools of large and small cities. Heads of many of these schools with less education than the children they purport to instruct can see only in every eighth grade pupil a prospective tuition fee. Long before the student has become a graduate an attempt is made to pledge girls and boys to one or other institution. Broad promises, cut rate tuition, cheap books and good positions are the chief arguments advanced. A sleek solicitor working on the prejudices and sentiment of poor laborers opens a road to elysium for the son or daughter. An ill-advised signature and a part-payment of tuition bind a poor family to an institution which after six months, when the actual graduation has taken



A suggestion for settling the Cook-Pearry controversy.



The spelling board pares a few more words.



Interesting times in the Cleveland, O., Board of Education.

place, is regretted but paid—sometimes under threat of law.

The American press and public have for several years without objection tolerated this nefarious practice. The one silenced by promises of advertising, the other too indulgent and uninformed to express resentment have left the adjustment to time or some other force existing or to be created in the economic evolution of the country. With the employment of several new methods of solicitation, it has become necessary that the attention of superintendents of schools and members of boards of education, who must necessarily know and advise on business or commercial institutions, be directed to the distinction between the good and the bad.

With the dropping of 75 per cent of the eighth grade graduates who ought to attend the high school the superintendent of schools and school board members must know which is the best, which the second best, and which is the poorest business school in his community. A knowledge of teachers, methods, heads and course of instruction is within the possibility of every educator. With this information at hand, the feeling toward the best business institution can be made to permeate the entire school system. Quietly and without ostentation, it can be shaped away from the institution employing pernicious solicitors toward the best and most high minded. It can be inculcated with the thought that necessity will create an army of workers who, with

the aid of special commercial schools, must rise to larger things by first filling unpretentious and menial positions.

SUPERVISION OF SCHOOLHOUSE CONSTRUCTION.

The school board of St. Paul, Minn., has appropriated the sum of \$15,000 for the employment of "clerks of the works" to supervise every portion of the construction of two new high schools and several elementary schools. The sum thus to be spent amounts to 1½ per cent of the total cost of the proposed buildings and is a generous allowance.

Money thus spent is well invested and insures not only good and honest materials, but also safe and careful construction work. It obviates the laxity and slipshod methods that are common in public work, makes the school boards secure in the knowledge that buildings are what they were planned and contracted to be. We need not mention that such inspection will insure the long life of a schoolhouse, will obviate the necessity for repairs, etc. In every city and village the results of the absence of able inspection can be pointed out. Every school official can call to mind a building in which the contractor, to use a vulgar expression, "skinned the job."

It is the duty of every school board to provide adequate inspection in the erection of new school buildings. That means not only to hire men, but to get competent, honest men. In a structure of any size it will require an engineer who can test materials and whose knowledge of construction methods is such that he cannot be hoodwinked. Above

all, it will necessitate a man whose honesty and strength of character are such that he can dominate the situation and bring a recalcitrant constructor to time.

THE TREND IN VOCATIONAL TRAINING.

Developments in the movement for industrial education during the past few months indicate clearly that the new form of instruction is designed to prepare privates in the great army of workers and not captains or generals. The vocational or trade school is not to be a stepping stone to the technical college, but is to prepare boys for the workshop.

In Boston the school committee has ordered a complete change in the policy of the Boys' High School for Industrial Arts, whose students have for a dozen years been prepared to enter a school of technology. The courses are now laid out so that the students may take their place as trained workmen immediately upon graduation. They will not have a slice of an engineering education, but a complete trade training.

The co-operative shop and school courses which have just been opened in Columbus, Chicago, Freeport, Ill., and other cities clearly indicate a tacit acceptance of this same idea on the part of educators.

It seems to be well worth trying out. If the public school is to give all boys the completest possible training to make them good and useful citizens, it must take care of those who by inclination, natural ability and force of circumstances will enter the trades and industries.



President Taft's reception committee in Chicago.



The overcrowded conditions of public schools as viewed by the cartoonists in Newark, N. J., and Philadelphia, Pa.



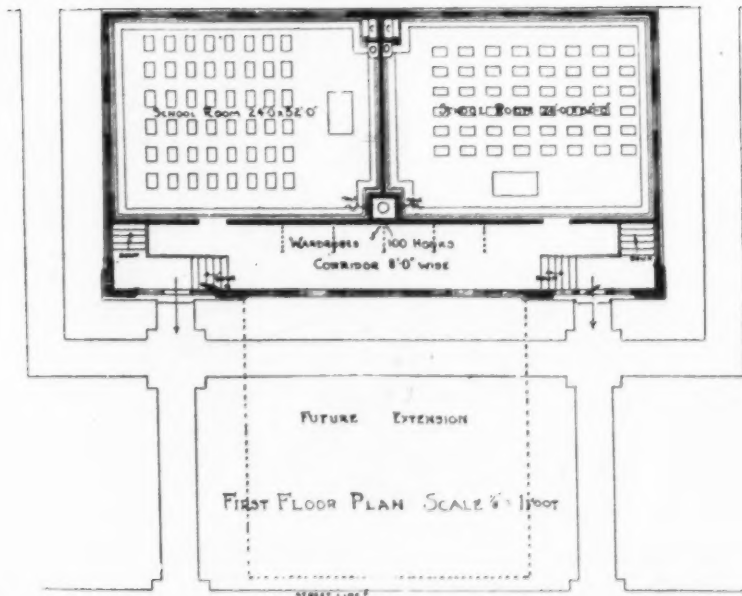
HIGH SCHOOL, BRECKENRIDGE, MO.
Mr. A. A. Searey, Architect, Marysville, Mo.



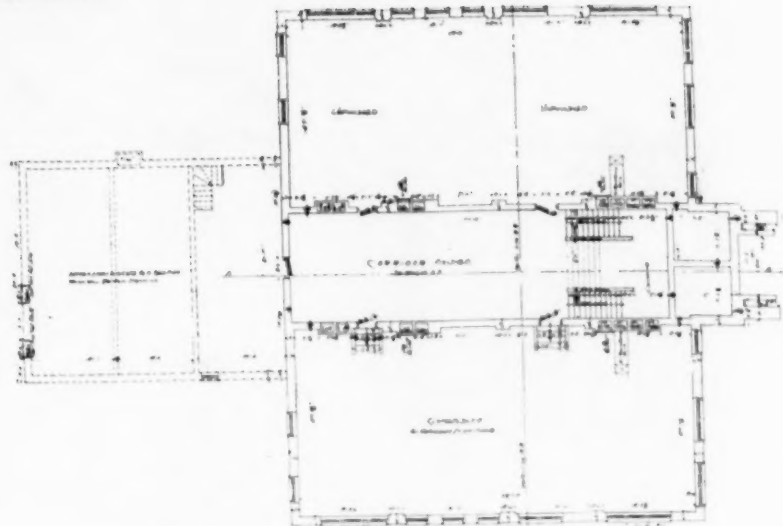
FIRST FLOOR PLAN, HIGH SCHOOL, BRECKENRIDGE, MO.



HIGH SCHOOL, BELOIT, WIS.
J. C. Llewellyn, Architect, Chicago.



FLOOR PLAN, BRIGHTBRIDGE PRIMARY SCHOOL, EAST PROVIDENCE, R. I.



BASEMENT PLAN, BRECKENRIDGE HIGH SCHOOL.



SECOND FLOOR PLAN, HIGH SCHOOL, BRECKENRIDGE, MO.



SUSAN T. BLOW SCHOOL, ST. LOUIS, MO.
Wm. B. Ittner, Architect for the Board of Education.



BRIGHTBRIDGE PRIMARY SCHOOL, EAST PROVIDENCE, R. I.
Stone, Carpenter & Sheldon, Architects, Providence.

Disinfecting School Rooms.

The Kansas state board of health has prepared directions for disinfecting school rooms. They are intended to assist school boards in preparing their buildings for fall opening.

In preparing the rooms for disinfection the board suggests that windows, doors, registers, openings into chimneys, key holes and all other apertures through which air can pass shall be sealed. In other words, the rooms should be made as air tight as possible.

All surfaces should be exposed as much as possible, closet doors opened and their contents, together with the contents of drawers, removed, scattered about, and the drawers left open, so as to expose all sides—in short, the room and its contents so disposed as to secure free access of the gas to all parts as fully as possible. Upon this preparation largely depends the thoroughness of the disinfection.

The disinfective materials found most efficient, at the same time inexpensive, and the ones most highly recommended by the Kansas board are: Formalin 40 per cent and permanganate of potash. One pint of the formalin solution together with seven and one-half ounces of permanganate is sufficient to disinfect 1,000 cubic feet of air space. Earthen jars or tin containers should be used for holding the solution.

After the preparation of the room, a three-gallon jar for say one pint of the formalin solution should be warmed; it is best to wrap the jar or tin containers with asbestos to retain the heat. Then for 1,000 cubic feet of air space, put seven and one-half ounces of permanganate into the container and pour over this one pint of the formalin solution and beat a hasty retreat, closing and sealing the place of exit. The temperature of the room should be about 70 degrees. Active boiling takes place in the jars from the chemical action between the materials. The gas thus generated is not injurious to any furnishings of the room. The room should remain sealed for four or five hours to make the fumigation perfect. Moisture in the room makes the disinfection more effectual. This may be secured by placing a tub of boiling water in the room a little while before mixing the disinfecting materials.

For large rooms find approximately the air space and use one pint of the formalin and seven and one-half ounces of permanganate for each 1,000 cubic feet. For containers a number of the above jars may be used or a single jar of from five to eight gallons capacity. As a precaution against boiling over the top, the container may be placed in a tub or large pan.

Before occupying the rooms thus disinfected, it should be thoroughly aired and all woodwork washed off with hot water.

A new medical inspection law of interest is in effect in the state of Maine.

The first section of the act provides that the school committee of every city and town shall appoint one or more school physicians and shall assign one to the medical inspection of not over 1,000 pupils of the public schools within its city or town, and shall provide them with all proper facilities for the performance of their duties as prescribed in the act, provided, however, that the said committee has been so authorized by vote of the town at regular town meeting or at a special town meeting called for that purpose. The succeeding sections of the act are as follows:

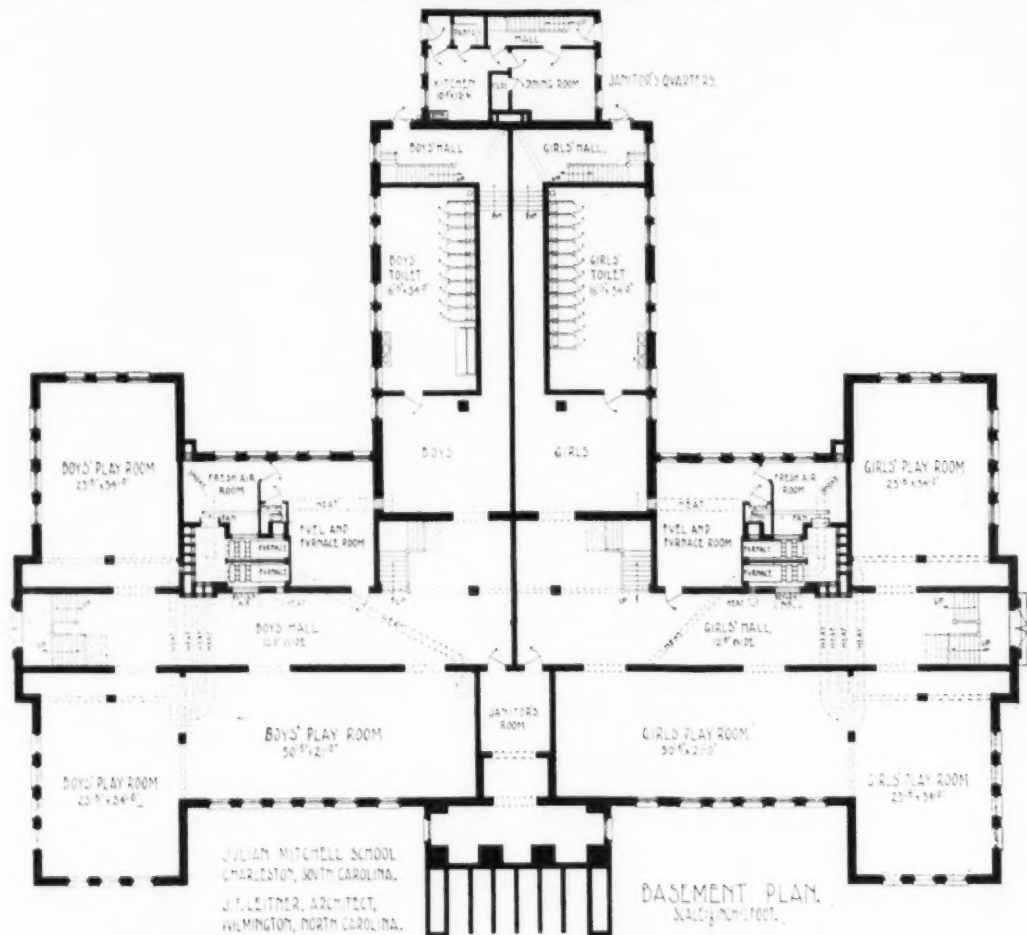
Section 2. Every school physician shall make a prompt examination and diagnosis of all children referred to him as hereinafter provided, and such further examination of teachers, janitors and school buildings as in his opinion the protection of the health of the pupils may require.

Section 3. The pupils so examined by school physicians when treatment is necessary shall

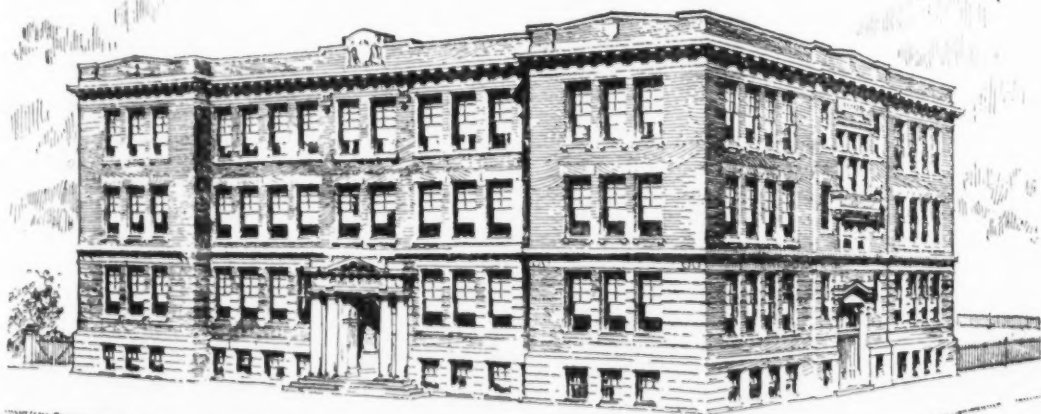


See page 12.

JULIAN MITCHELL SCHOOL, CHARLESTON, S. C.
Mr. J. F. Leitner, Architect, Wilmington, N. C.



BASEMENT PLAN, JULIAN MITCHELL GRAMMAR SCHOOL, CHARLESTON, S. C.



NEW THIRD DISTRICT SCHOOL, ELIZABETH, N. J.
Mr. Clyde S. Adams, Architect, Philadelphia, Pa.

not be referred to the school physicians for such treatment except the school physician be the regular family physician of such pupil, but

shall be referred to the regular family physician of such pupil through the parents or guardian.

JULIAN MITCHELL SCHOOL.

Simplicity, dignity and usefulness have been the leading ideas emphasized by Architect J. F. Leitner in designing the Julian Mitchell school at Charleston, S. C. The result is an economical, sanitary and beautiful building that will bear favorable comparison with the finest examples of modern American school architecture.

The exterior is a pleasing, simple adaptation of the classic Ionic, worked up in red brick and Bedford stone. The general shape of the building is a huge "T," the auditorium forming the stem of the letter.

Resting on concrete footings, all walls are built of brick and stone. Floors are of semi-fireproof construction, surfaced with hard maple. All walls are finished in hard plaster. The wood trim is oak, stained dark green, and finished in dull wax.

The basement is equally divided between the boys and girls. Six large rooms afford space for play, at present, and are arranged that manual training or domestic science equipment can readily be installed. The toilet rooms are placed underneath the assembly hall and have entrances from the main hall and from the school yard.

The building contains sixteen classrooms, four seating 40 pupils each, four seating 45 pupils each, and four seating 50, a total of 740. Each room is arranged to be lighted from the rear or from the left and rear. Bookcases are built into the walls in each room. The chalk boards are green.

The cloakrooms are provided with the usual hooks and have umbrella stands with drains running to the basement.

The corridor arrangement is simple, and four stairways are conveniently located at the ends and in the center of the building. Drinking fountains and foot-warmers are in each of the halls.

On the first floor, flanking the main entrance, there is an office for the principal and a room for the teachers. Each has a wardrobe closet and a toilet. Immediately above is a library and a second teachers' room.

The auditorium is placed on the first floor immediately back of the main entrance. It has a large stage and will comfortably seat 750 persons. The arrangement is ideal, not only for school assembly purposes, but also for public lectures and entertainments.

A residence for the janitor has been added to the building at the rear of the auditorium. It consists of a kitchen, a dining room, two bedrooms and a bath. American school authorities have been slow to see the advantage of having the janitor permanently installed in the school premises. In European schools, particularly in Germany and Austria, the janitor and occasionally the principal are provided with rooms in the schoolhouse.

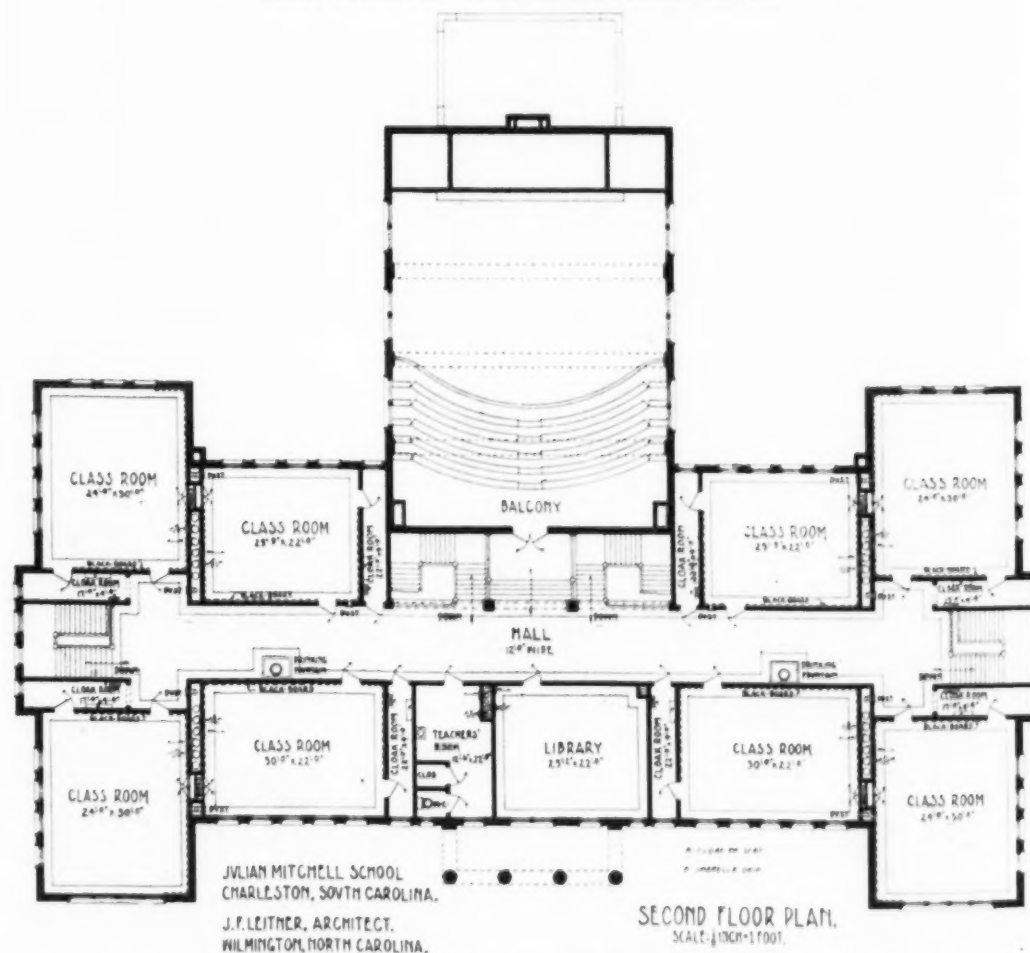
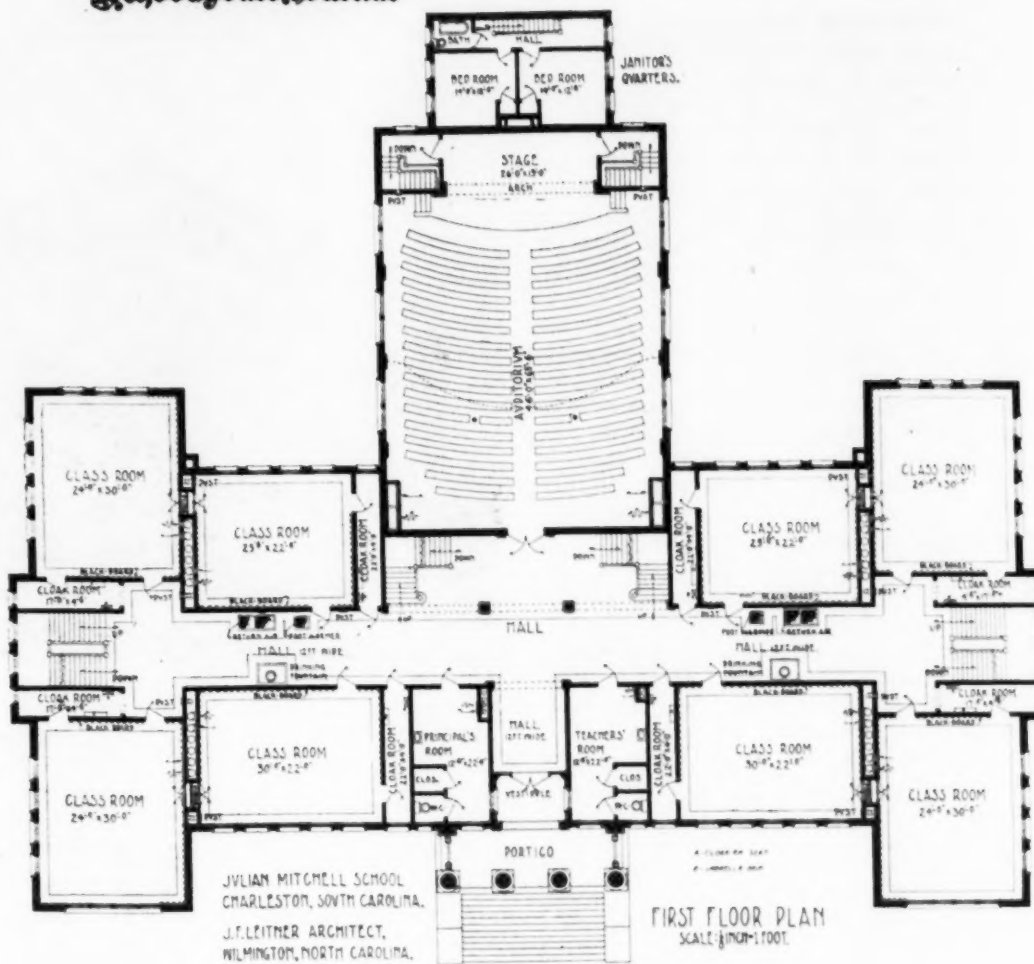
The heating and ventilating system consists of two sets of warm air furnaces with automatic control. Motor driven fans force the air into the classrooms at a point about eight feet above the floor. The arrangement is most simple and economical and evidences much careful study.

The cost of the building, exclusive of furnishings, was \$40,000.

Mr. J. F. Leitner of Wilmington, S. C., was the architect.

Building and Finance.

Dr. J. M. Withrow, member at large of the Cincinnati school board, has compiled a list of the school tax rates in Ohio cities. Cities in the southern part of the state have much lower rates than those in the north. The average tax rate for 1910 is slightly over 11 mills as compared to 10.88 mills in 1909. The lowest rate



has been fixed by Urbana—7.5 mills, assessed against a population of 6,800. On the other hand, Nelsonville, with a population of 5,421, as the highest rate in the state—18.5 mills. Circleville, with a population of 6,991, has a rate of 8.4 mills. In the larger cities the following rates have been fixed: Cleveland, 12 mills; Cincinnati, 8.5 mills; Toledo, 10.5 mills; Columbus, 10 mills; Dayton, 9.15 mills; Youngstown, 12 mills; Akron, 10.4 mills; Canton, 11.1 mills; Lima, 12.5 mills; Hamilton, 11

mills; Newark, 11.5 mills; Springfield, 7.9 mills; Mansfield, 11 mills; Findlay, 12 mills; Steubenville, 12 mills.

Omaha, Neb. The city electrician has suggested to the school board that all non-fireproof buildings be equipped with an electric fire alarm. None of the elementary schools are equipped with telephones or other means of giving notice of a fire. An automatic device which rings gongs and turns in an alarm at the nearest fire station was suggested.

EXAMPLES OF WIND EFFECTS ON VENTILATION AND HEATING

By H. W. WHITTEN

The effects of wind blowing against a building are manifold. The most apparent effect is the inleakage of air through crevices, particularly those about the movable windows and doors. In cold weather this inleakage becomes sensible or evident in the form of cold drafts, which are often noticeable at a distance from the walls toward the interior.

The volume of this inleakage varies in proportion to the velocity of the wind, sizes of crevices and means of egress of air from the building. It is also affected in a small degree by the pressure exerted by the expanded warmed air inside of the building. This pressure must be overcome before the outside air can enter. During the heating season this inleaking air, being of a lower temperature than that at which the air inside is desired to be, must be heated.

Both these phenomena are apparent and their effects are common knowledge. Recent investigations have shown, however, that the variation in the volume of inleakage due to variation of wind velocity is much greater than was generally believed.

The least apparent effect, and, in the writer's opinion, the most important, is the outflow of warmed air through crevices in the sheltered sides of buildings.

Windows and doors are constructed with the primary object of excluding drafts from outside, but are not so well adapted to prevent air currents escaping from the inside.

The wind strikes an obstruction, a building, is diverted from its natural course and is forced to pass by and over the obstruction. In doing this its speed is accelerated, the parted currents uniting at some distance beyond the building resuming their normal velocity.

This action produces an area of low pressure in the lee of the building which acts as a partial vacuum. This partial vacuum acts as a continuous pump on the crevices in the lee sides. As the pressure of the inside warm air is naturally outward, the combination of this pressure with the partial vacuum outside produces a greater loss than is sustained on account of inleakage, i. e., assuming aggregate amount of crevice on each side to be equal. This loss is greatly increased when other means than wall crevices are employed to admit outer air, such as cold air inlets for hot air furnaces, supply inlets for indirect or fan systems, etc.

It has been well said by a writer on this subject that "we are prone to notice only that which is evident to the senses." This outward flow of air is not attended by disagreeable drafts and, unless special means are taken to detect it, is not evident to the senses.

Typical Tests.

A few typical tests made by the writer and others during the past winter in this connection should be of interest.

The first test is of a school building, rectangular in shape, the ends of building facing north and south, having stairway windows only in these ends; east and west sides divided into schoolrooms, each having five windows five feet wide by nine feet high, window sills on a level with tops of pupils' heads when seated; windows having usual clearance; rooms heated by a fan system designed to supply 1,800 cubic feet of air per hour per pupil with inlet velocity of 750 feet per minute; wind northwest, velocity 14.5 to 15 miles per hour; outside temperature, 33 degrees. Room No. 5 situated on the east side of first floor building, one room

removed from south end, showed an average rate of supply velocity of 817 feet per minute and a vent velocity of 340 feet per minute. Inlet and outlet of same size. Inlet eight feet above floor, outlet at floor and both on opposite side of room from windows. This showed a loss of 457 feet per minute. An air test of this room showed ten parts of carbon dioxide in 10,000. This loss was practically all above the breathing line and frequent complaints of headaches among scholars occurred.

Other rooms on the east side of building showed as follows:

	Rate of supply.	Rate of vent.
First floor, Room No. 3.....	780	410
First floor, Room No. 6.....	753	396
Second floor, Room No. 13.....	690	315
West Side:		
First floor, Room No. 7 (partly sheltered).....	660	700
Second floor, Room No. 14 (exposed to strongest wind effect).....	410	705

Temperature Control in Use in the Building.
Average temperature east rooms at the breathing level 73°; at floor 70°.
Average temperature west rooms, breathing level 68°; at floor 58°.

A test of another school building with wind at eighteen miles per hour and outside temperature thirty degrees, building heated and ventilated by gravity indirect system, showed an average of 20 per cent loss from the supply ducts in rooms on the windward side and an addition of 60 per cent to the vent velocity.

Rooms on the leeward side of the building showed an addition of 3 per cent from the supply velocity and a reduction of 62 per cent of the vent velocity.

A school building having a few corridor windows on the north side, and schoolroom windows on the east, south and west, was tested with typical results, as follows: Wind, twenty miles per hour; direction, northwest. Room No. 26 on east side of building, two movable windows seven feet wide by nine feet high, one tight window ten feet wide by nine feet high, sills level with breathing level. Inlet eight feet from floor, four feet from east wall, volume of air supply 2,340 cubic feet per minute; volume of air passing out vent, 1,451 cubic feet per minute.

Room No. 28, south side of building, near east end, windows same as No. 26; volume of supply, 1,863 cubic feet per minute; volume of air passing vent, 1,311 cubic feet per minute.

A test made by Mr. A. B. Franklin of Boston and the Massachusetts district police on a school building some years ago is also interesting. Wind, twenty-five to thirty miles per hour, and blowing toward a majority of windows in the building:

Room No.	Air supply at inlet, cu. ft. per min.	Air vent. at outlet, cu. ft. per min.
11 (exposed).....	1,536	2,367
12 (exposed).....	1,533	2,307
13 (exposed).....	1,906	2,838
14 (exposed).....	2,244	2,990
15 (partly sheltered).....	2,200	2,368
16 (partly sheltered).....	760	805
20 (exposed).....	1,694	2,391
21 (partly exposed).....	2,517	2,777
22 (partly exposed).....	1,609	2,031
23 (partly exposed).....	2,253	2,762
24 (partly exposed).....	1,389	1,653
25 (partly sheltered).....	2,301	2,288
30 (partly exposed).....	1,984	2,394
31 (exposed).....	568	1,154
32 (partly sheltered).....	1,602	1,773
Hall (sheltered).....	7,833	5,786
35 (partly sheltered).....	2,153	2,442
34 (partly sheltered).....	1,863	2,148
36 (exposed).....	933	1,404

A high school building was recently tested by Prof. H. C. Anderson of Michigan University, there being some question as to whether the heating contractor had put in a competent apparatus (fan system). The supply seemed of sufficient quantity and temperature, but rooms on the exposed sides of the building could not be satisfactorily heated. After shutting down the fan the supply ducts were closed in the rooms on the exposed side of the building, and,

with all doors and windows closed, it was found that as much air was being removed from the vent ducts as the fan system was supposed to supply. During this test the outside wind was of moderate velocity.

Tests of several buildings in which the leakage about outer openings had been standardized by means of a metal expansion joint showed an average difference between supply and vent flow of ten to 15 per cent, the greater part of this being due to difference in temperature of air at these points.

New Salary Schedule.

Edwardsville, Ill. The school board has advanced the salaries of teachers in the public schools. Following is the schedule adopted:

Grade.	1st yr.	2d yr.	3d yr.	4th yr.
1	\$60.00	\$60.00	\$60.00	\$60.00
1	50.00	52.50	55.00	57.50
2	35.00	40.00	45.00	45.00
3	35.00	40.00	45.00	45.00
4	35.00	40.00	45.00	45.00
5	40.00	42.50	47.50	50.00
6	40.00	42.50	50.00	52.50
7	40.00	45.00	50.00	52.50
8	40.00	45.00	50.00	52.50

High School—

Principal	95.00	100.00	105.00	110.00
First assistant..	65.00	70.00	75.00
Second assistant	62.50	67.50	72.50
Third assistant..	55.00	60.00	65.00
Fourth assistant.	55.00	60.00	65.00
Music	30.00	35.00	35.00
Drawing	30.00	35.00	35.00

Colored school—

Principal	65.00	70.00	75.00
Grades	35.00	40.00	45.00

Janitor, white, including assistants, \$100 per month for nine months and \$50 per month for the three summer months. Colored, \$12 per month for twelve months.

Mr. John A. Wood.

John A. Wood, who recently succeeded Calvin Moon at South Bend, has devoted his entire life to educational work. During the past twelve years he was located at La Porte as high school principal and superintendent.

Mr. Wood is a native of Cleveland, Ohio, and received his education in the Indiana State Normal school and the Indiana State university. He has taken a prominent part in Indiana educational circles and has held prominent offices in a number of state educational associations.

Mr. Wood is a man of strong individuality, tact and lively human sympathy. He should succeed well in his new office.



JOHN A. WOOD,
South Bend, Ind.
Superintendent of Schools.

*Read before the American Society of Heating and Ventilating Engineers, at Indianapolis.



New York City. The following books have been introduced in the day and evening high schools under a five years' adoption: Tuell and Fowler's first Latin book (Sanborn); Stone-Millis algebra (Sanborn); Robinson and Beard's Development of Modern Europe (Ginn); Colton's zoology (Heath); Huffcut's business law (Ginn); Bergen's botany (Ginn); Bergen's key and flora of northern and central states (Ginn); Linville and Kelley's general zoology (Ginn); Atwood's commercial speller (Ginn); Maynard's English classic series, selected list (Merrill).

Athens, O. Hale's first year Latin book and West's ancient history adopted by the school board.

"French Verbs" is the title of a new book by B. and E. Jules Meras, issued by the Sturgis & Walton Company of New York. It is intended for drill work in irregular verbs and verbal idioms, especially for use of high school students.

Smith's arithmetics have recently been adopted in Vernon county, Mo. More than thirty counties in the state use the book.

Lewiston, Ill. Ray's arithmetic has been selected to replace Hall's text.

Marion, O. The school board has adopted the Bailey-Manly speller (Houghton-Mifflin Company); Krohns' physiology (D. Appleton & Co.); Zaner's writing books (Zaner & Bloser); Industrial series drawing books (Atkinson, Mentzer & Grover).

Mingo, O. Adopted by the board: Hick's speller and Zaner's arm-movement writing books.

New London, Wis. Wells' revised algebra and Adams' physics adopted.

Wheeling, W. Va. Hanson's elementary composition has been added to the high school list.

New Lexington, O. The school board has adopted Wells' algebra, Hendrick's algebra, Pearson's Beginners' Latin, Myer's ancient history, Robinson's medieval and modern history, Hart's United States history, Tarr's physical geography.

The Chicago board of education has begun to sell text books to the pupils of the public schools at wholesale prices. A lot of 45,300 copies of Dodge's geographies were recently purchased from Rand, McNally & Co. The saving to the children on these books is estimated at \$6,000.

Recent adoptions of Young and Jackson's algebra (D. Appleton & Co.) include: Grand Rapids, Mich., Easton, Pa., Media, Pa., West Chester, Pa., Swarthmore, Pa., Atlantic City, N. J. Plainfield N. J.

The Appleton arithmetics have been recently adopted in Adams county Ia., Bound Brook, N. J., Georgetown, Rowley and Groveland, Mass.

Adams' elementary commercial geography will be extensively used in the Boston public schools this year.

Southworth's Builders of Our Country (Appleton) has received over 500 adoptions in New York state alone.

Providence, R. I. Adopted, Kittredge & Arnold's "Mother Tongue" books (Ginn) in place of Tarbell's language lessons.

Salem, O. Hunter's elements of biology and Young and Jackson's elementary algebra adopted.

An excellent new text book for high schools and colleges is Prof. Alvin S. Johnson's introduction to economics. D. C. Heath & Co. are the publishers.

Portsmouth, O. The school board has adopted Toothaker's commercial raw materials, Moore and Miner's accounting and business practice, for the second year in the commercial department of the high school.

Thomas Y. Crowell & Co. have issued a "New Book List, 1909."

Springfield, Ill. The first school books to be filed with the superintendent of public instruction under the new state text book law were listed with Supt. Blair by the Henneberry company of Chicago. The books filed are: Payne's elementary and practical arithmetic.

The Henneberry company filed a sworn statement, as required by the new law, that it is not allied with a trust and that it has no agreement with any other publisher to restrict competition or control prices. Mr. Blair will at once certify to the school authorities of the state the fact that these books have been filed with his office. The law does not require notification until in February, but he will act at once.

Dodge's geographies, published by Rand, McNally & Co., have been selected by the Chicago board of education to replace the Tarr & McMurry text.

Nashville, Tenn. The state teachers' reading circle has selected the following books for the year 1909-1910: Niver's history of England, Tompkins' school management, Parkman's La-salle and the discovery of the great west, and Salisbury's theory of teaching.

Carthage, Mo. Tappan's history of American literature (Houghton-Mifflin), Tappan's history of English and American literature, and Barnes' complete Pitmanic shorthand have been adopted for the high school.

Birdsboro, Pa. Hamilton's arithmetic has been adopted.

A comparison of the total prices of the books adopted for the state of Tennessee during the next five years reveals the fact that they will cost 60 cents more than the old cost.

Steubenville, O. Hicks' speller (American Book Company) and Zaner's arm movement writing books (Zaner & Bloser) adopted.

Springfield, O. The board has adopted the Bailey-Manly speller, Patterson's word book, Inglis and Prettyman's Latin, Gunnison and Harley's Caesar, Krohn's physiology, Zaner & Bloser's writing and Young and Jackson's algebra.

Supt. John C. Gray of Chicopee, Mass., is author of a new book entitled "Number by Development," soon to be issued by the J. B. Lippincott Company.

Penn. Pa. The school board has selected Maxwell's First Book in English and Payne's Nature Studies (American Book Company); Merrill's new graded system of penmanship (Charles E. Merrill Company) for school use.

Rockford, Ill. The school board has adopted Stone's primary arithmetic and the Applied Arts drawing books.

Watertown, N. Y. Pierce's Essentials of Latin and Ashley's American history have been adopted.

Uniontown, Pa. The school board has adopted: Foundation Lessons in English (Macmillan); Culler's physics (Lippincott); Bennett's Virgil, Bennett's Beginner's Latin (Allyn & Bacon); Fraser and Squier's French grammar, Snow and Lebon's French reader (D. C. Heath); Champion speller (American Book Company).

Butler, Mo. The Wentworth-Smith arithmetic has been adopted for the schools.

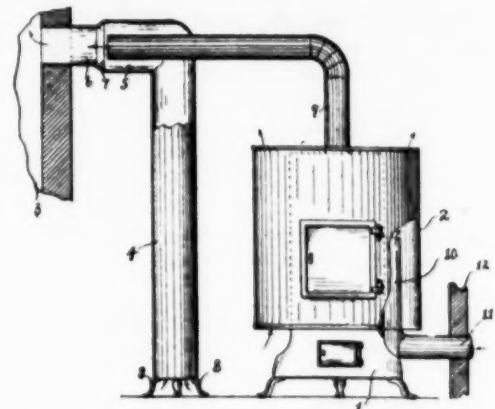
Freeport, Ill. The board has adopted: Morey's ancient history, Coulter's botany, James and Sanford's United States history, Redway's commercial geography, Powers and Lyons' business arithmetic, Moore & Miner's bookkeeping.

(Concluded on Page 20.)



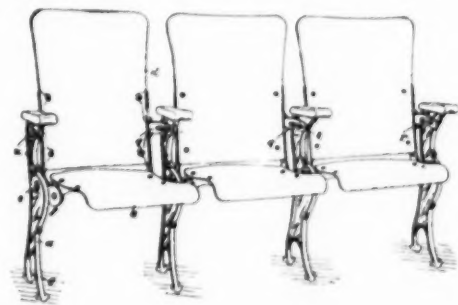
RECENT SCHOOL PATENTS.

Combined heating and ventilating system. Michael F. Weidenbach and Frank B. Peters, Minneapolis, Minn.



In a heating and ventilating apparatus, the combination with a main flue or chimney, of an upwardly extended ventilating flue having an approximately horizontal upper end portion made up of an enlarged section and a contracted section, the said contracted section having approximately the same cross section as the vertically extended body portion of said ventilating flue, and a stove or heater having a smoke pipe extending axially through the enlarged upper section of said ventilating flue, but terminating outward of the contracted section thereof, so that said smoke pipe does not decrease the conducting capacity of said contracted portion of the horizontal upper end of said ventilating flue, and the enlarged horizontal upper end portion of said ventilating flue being of such diameter that the annular space within the same surrounding said smoke pipe is equal in area to the area of the cross section of the vertical body portion of said flue.

Opera chair. Albert Wanner, Jr., Hoboken, N. J.

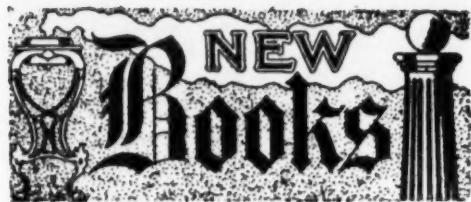


The combination of the side standard, the back, the seat, and means for supporting the back and seat on the side standards comprising hinged brackets, one part of each bracket carrying the seat and the other part carrying the back, and said means also comprising devices, pivotally attached to the upper and lower portions of said other parts of the brackets, for securing said brackets to the side standards.

SUPPLIES AND FURNITURE NOTES.

Martinsburg, W. Va. Contract for Triumph desks and blackboarding awarded to the American Seating Company, Buffalo branch.

Beatrice, Neb. The new high school has been equipped with a Hahl automatic clock system. A fire alarm device is connected with each secondary clock, so that an alarm can be sent from each classroom. The system was installed by the Hahl Automatic Clock Company, Chicago.



Elementary Modern Chemistry.

By Wilhelm Ostwald and Harry W. Morse. 12mo. Cloth. 291 pages. Illustrated. List price, \$1; mailing price, \$1.10. Ginn & Co., Boston, New York, Chicago, London.

It is rather pleasing to note how scientific the authors have made an elementary text book. It is distinctly modern and as such will certainly be welcomed by many instructors in elementary science. The teacher who has followed with interest the development of modern chemistry and who wishes to present the subject in the most connected and practical way will find this book an interesting and valuable aid.

Education in the Far East.

By Charles F. Thwing, LL. D., president of Western Reserve University and Adelbert College, Cleveland. Cloth. 271 pages. Price, \$1.50, net; postage, 15 cents. Houghton-Mifflin Company, Boston and New York.

The problem of the east and the far east relates to five nations, Japan, China, Korea, India and Egypt. The one problem is of five applications, and the five applications represent a force and condition for the solution—education. President C. F. Thwing has given a very readable and interesting study of the relations of education to these countries. The work is the result of an extended tour and a first hand examination of the various conditions and educational systems, and is claimed to be “an interpretation of forces, industries and movements.” The author first takes up the educational problems confronting the different countries and then shows what has been done and what remains to do, and the part that may be played by improved educational methods in the development of the east. A readable book.

Essentials of Public Speaking.

By Robert I. Fulton, dean of the School of Oratory, and professor of oratory in the Ohio Wesleyan University, and Thomas C. Truett, professor of oratory in the University of Michigan. 12mo. Cloth. Illustrated. 235 pages. List price, 90 cents; mailing price, \$1. Ginn & Co., Boston, New York, Chicago, London.

A really good book on the essentials of public speaking will be welcomed by college students and professors. The purpose of the present volume is to supply a demand in the secondary schools in the essentials of good delivery in reading and speaking. Those attending public banquets to any extent must often have been pained with the laborious and nonsensical mannerisms of many public or quasi public speakers. Anything that will make the rising generation better speakers in general than are their elders will certainly be welcomed. We think this volume is calculated to bring about this desirable end, provided it be well studied and its precepts practiced.

School History of the United States.

By Charles Morris. 422 pages. J. B. Lippincott Company, Philadelphia.

This school history is somewhat smaller than others intended for the seventh and eighth grades. Nothing, however, of importance has been omitted. The leading events are set forth in such a manner as to show their relations and historical significance and to give a fair general idea of the causes and the results of the great issues which have affected the life and government of our people. Clearness and accuracy of statement and simplicity of language have been successfully attended to. The work is divided into the era of discovery, the era of exploration, the era of settlement, the colonial wars, the revolution, the era of the early republic, the development of the nation, the period of controversy, the civil war, the progress of the new Union, and the United States

in the twentieth century. There are 431 illustrations and inserts and thirty-one maps. The type is large and the subjects are divided by black letter side headings.

Practical Argumentation.

By George K. Patten, assistant professor of rhetoric in the Pennsylvania State College. 12mo. Cloth. 363 pages. Price, \$1.10, net. The Century Company, New York.

The author's aim has been to produce a book that is practical from the standpoint of the student as well as that of the teacher. The writer deals lucidly and at some length with the subject of argumentation, persuasion, conviction, brief drawing in respect to the introduction. In the discussion he treats of conviction and persuasion and also brief drawing. He then deals with methods of refutation, and offers some practical suggestions for debate and how to make a successful conclusion. In the appendix is found a valuable and lengthy list of propositions suitable for speeches or debates. The book contains a good index of subjects treated.

Common French Words.

Selected by R. De Blanchaud. Cloth. 32 pages. Price, 25 cents, net. Thomas Y. Crowell & Co., New York.

This book is made up of a thousand common French words arranged alphabetically in four sections according to their importance. Such exceeding common words as *pere*, *maison*, etc., which every student of the mere rudiments of French knows, are omitted. The English of the words given has been placed in the second half of the book. The book will prove most helpful to any one who desires to acquire a speaking vocabulary of the language.

Sir Walter Scott in the Schools.

Number four, Practical Aids to Literature, by Frank J. Browne. Paper, 98 pages. Whitaker & Ray-Wiggin Company, San Francisco.

This book presents an exhaustive analysis and outline of Scott's *Ivanhoe* and the *Lady of the Lake*, for teachers. Definitions of unusual and obsolete words, lists of questions and topics for composition are supplied. The book will be found most useful to the busy teacher.

Plane and Spherical Trigonometry

and four place tables of logarithms. By William Anthony Granville, Ph. D., Sheffield Scientific School, Yale University. 8vo. Cloth. With diagrams. 265-38 pages. List price, \$1.25; mailing price, \$1.40. Ginn & Co., Boston, New York, Chicago, London.

After a careful inspection of this work it appears to be especially praiseworthy in those details which most authors seem to take for granted, and consequently treat only in a cursory manner. This is especially true of the fundamental concepts and their first developments. The combined protractor and rule accompanying the volume is an ingenious device and will prove of great service to the student. It has been the author's aim to treat the subject according to the latest and most approved methods, and in this we think he has been successful. A large number of carefully graded exercises are given, and the processes involved are summarized into working rules wherever practicable.

Special Method in Reading in the Grades.

By Charles A. McMurry. 351 pages. Price, \$1.25, net. The Macmillan Company, New York.

This volume is a combination of two earlier volumes, namely: “The Special Method in Primary Reading and Oral Work and Stories” and “The Special Method in Reading of English Classics.” The purpose is to discuss, in a practical and comprehensive way, the problem of introducing children to our best reading material and to the art of reading. Included in this plan is a course of study for reading in the eighth grades. There are useful lists of books for regular reading lessons, and other lists for supplementary and reference books, from the fourth to the eighth grade.

Told in a Little Boy's Pocket.

By Sara Beaumont Kennedy. Cloth. 129 pages. Illustrated. Thompson-Brown Company, Boston.

This is a book for the little folk. It is the conversation of a nail, a lead pencil, a string, a button, a marble and a pin, all of whom traveled all day in a little boy's jacket pocket. There are some clever colored illustrations. The book would make a pretty Christmas present for the latest “little man” of the family. It should find a place in every school library.

English Literature.

By William J. Long, Ph. D. (Heidelberg). Cloth. 582 pages. Illustrated. Ginn & Co., Boston, New York, Chicago, London.

Prof. Long has brought to this book a labor of love. One thing that impresses us, in the various sections, is the buoyant spirit pervading all. The work is a direct, simple, interesting account of English literature by one widely read. The great periods of our literature are clearly and accurately summarized and explained, with the emphasis always on men rather than on classes or periods. A biography accompanies every great literary man, in his own natural environment, followed by a study of his best works, and then a clear, concise summary of his place and influence in the history of literature. An unusual feature of the work is the historical introduction which precedes each great literary period. In these brief summaries the reader reviews the great movements of English history, and is made acquainted with the struggles and ideals, the failures and triumphs, out of which come our greatest books. The book is an excellent one.

Box Furniture.

By Louise Brigham. Cloth. Illustrations. 304 pages. Price, \$1.60, net; postage, 14 cents. The Century Company, New York.

Louise Brigham has shown to the world in this ingenious book the latest possibility of the box—an article often thrown away or used for kindling wood. The author gives directions how to construct from packing boxes one hundred articles of household furniture, from wardrobe and bedstead to magazine rack. Full instructions as to the tools necessary and the constructing of the furniture are given, and a description of several rooms is given, which, besides the amateur furniture, the color scheme of woodwork, furniture, walls, ceilings, hangings, pillows, window seat cover, curtains, floor and even the shades of the blossoms of plants are suggested. This unique book has taken the popular fancy, and one of the largest book shops in Chicago reports that it is among the best sellers.

Integrals of Mechanics.

By Oliver Clarence Lester, Ph. D., professor of physics, University of Colorado, formerly instructor in physics in the Sheffield Scientific School, Yale University. 8vo. Cloth. 67 pages. With diagrams. List price, 80 cents; mailing price, 90 cents. Ginn & Co., Boston, New York, Chicago, London.

This book is a convenient presentation of material common to both mechanics and calculus. It should provide saving of time and energy by giving the student in one book applications of calculus useful in mechanics, and the purely mathematical parts of mechanics which are entirely apart from the ideas of force and motion. The subject matter is concerned entirely with such applications of calculus as the computation of lengths, areas, volume, densities, centers of mass, movements of inertia and ellipsoids of inertia. These subjects are treated in detail, all principles being fully illustrated by examples worked out in the text and by numerous problems set as exercises.

Emergencies.

By Charlotte Vetter Gulick. 12mo. Cloth. 174 pages. Illustrated. List price, 40 cents. Ginn & Co., Boston, New York, Chicago.

The publication of “Emergencies” marks the completion of the Gulick Hygiene Series, which

New Rules and Regulations

New Ishpeming Rules.

Ishpeming, Mich. The school board has recently adopted a number of rules determining duties of the superintendent and regulating meetings of the teachers.

The office hours of the superintendent of schools shall be from 8:30 a. m. to 9 o'clock a. m., and from 3:30 p. m. to 4:30 p. m., and during these office hours it shall be the privilege of the parents, guardians and teachers to consult with the superintendent on matters pertaining to the education of children and the discipline of the schools.

The superintendent of schools shall visit each primary and grammar grade in the school district at least once every month during the school year, for the purpose of reviewing the work in each room, assisting the teachers in bettering their methods of teaching, and help to cultivate in the pupils a more earnest and definite purpose of study for life's work.

There shall be held at least once every month during the school year department teachers' meetings, to be classified as (a) primary and kindergarten teachers' department; (b) grammar school teachers' department; (c) high school teachers' department, at which meeting every teacher of his or her respective department shall attend.

There shall be held at least two general teachers' meetings in each semester, or four meetings in each school year, when all teachers of the several departments shall be present. The object of all teachers' meetings shall be to discuss the general condition of the schools, and to suggest and adopt better means and methods for the education and discipline of the children in the district.

The superintendent of schools shall preside at all meetings and shall prepare an outline of the questions to be discussed. This, however, shall not be construed to prevent any teacher from introducing any question for discussion that may be of interest to the schools.

A record of the proceedings in all meetings mentioned above shall be kept in a book provided for that purpose by the district, which book shall be kept in the vault of the school district.

The superintendent of schools shall present to the board of education, at their regular meeting each month, a written report in which he shall set forth the day and date of his school visitations, time spent in each room, merits and demerits of each teacher regarding his or her ability to teach, standard of discipline and the general condition of each and every room by schools in the district, which report shall be filed by the secretary of the board, with the business of the meeting.

Milton, Pa. The school board has prohibited teachers from engaging in theatricals and concerts during the school term. An exception is made in the case of church and Sunday school entertainments. Parents have been requested by the board not to permit their children to take part in similar activities.

Green Bay, Wis. Two rules have recently been promulgated to further the progress of students in the high school. The first requires that the preparatory work for at least one study be done at home. Only two periods of the school day out of six are open to each student for preparatory study. The second rule provides that teachers report weekly all students who have ranked poorly. Investigation of each case must be made by the principal in order to help the student before he falls far behind.

Kankakee, Ill. The rules of the board have

been so amended that cadet teachers will replace substitutes formerly employed in the schools. The former will regularly teach three days per week, under the direction of the superintendent, and will receive a salary of \$25 per month. Cadets will act as substitutes in emergency cases. Vacancies in the teaching corps will be filled from the cadet list.

Worcester, Mass. The school committee is enforcing a new rule calculated to keep down the expenditures for school supplies. It provides "that the committee on books and supplies shall, with each report recommending the purchase of additional supplies of any kind, state the estimated cost of such supplies, and that the clerk of the school committee shall, at the earliest possible moment, report to this committee the exact cost of such supplies and the manner in which such supplies have been distributed."

Chicago, Ill. The school board has rescinded a rule requiring physical examination of teachers each time they apply for a certificate to teach special subjects. Hereafter only one physical test will be required during a teacher's career, no matter what position she aspires to.

Newark, N. J. Upon recommendation of Supt. Poland rules of the board have been so amended that teachers who resign during the school year receive pay for the time actually taught. Under the old rules teachers who resigned, for example, on Oct. 1, received a full month's pay for September, although they taught only half a month.

Providence, R. I. The school committee has so amended its rules that applicants for positions in the high schools must be graduates of a college or a polytechnic school. Special teachers in non-academic subjects will be excepted from the operation of the rule. Salaries for this class of instructors may not exceed \$1,200 per year.

Williamsport, Pa. A rule has been adopted requiring that the election of teachers take place annually in June at a special meeting of the board of education. The teachers' committee is required to report the names of persons which it recommends for the following year, at the regular monthly meeting of the board for June. An extra meeting held a week later must then be called, at which no other business except the election of teachers is taken up. Printed copies of the committee's report must be furnished each member of the board at least five days before the special meeting.

Milwaukee, Wis. A new rule to govern the amount of pay to be allowed teachers during absence has been adopted. It reads: Principals and teachers absent from school on account of personal illness shall be allowed half pay for not more than twenty days in any school year; for absence beyond twenty days no allowance shall be made, except that teachers who have been in the service of the board for more than twelve years without leave of absence on half pay may, upon recommendation of the committee on examination and appointment be allowed by the board leave of absence with half pay for a period not to exceed three months; or those who have similarly served twenty years shall be given five months' absence with full pay, when such absence is caused by severe personal illness of an extreme nature—the report of two reputable physicians, selected by the board, in addition to the family physician, being required.

The Milwaukee school board has passed a rule that applicants for teachers' certificates who pass in all branches but one shall be entitled to re-examination. Application must be made within thirty days after the results are announced by the superintendent.



How a School Book Agent Got There.

A very good little story which is worth telling here comes from a Pennsylvania county where the board consisted entirely of Pennsylvania Dutchmen.

Some years ago Harry Haug, a bright and active school book man, began to negotiate for the adoption of his books in this county. He represented the old firm of Iveson, Blakeman & Co. When he "struck" the board it was on a summer evening and the members had left the schoolhouse to rest under the trees which surrounded the building. The only man remaining in the schoolhouse was the secretary.

Agent Haug talked to the secretary eloquently, when the latter said, "I am satisfied if the rest are. Go out and see them."

Haug went to the first member lying under the tree and explained matters. The member replied that he was satisfied if the secretary was. The second member under the next tree said, "What does the secretary have to say?" When informed that the secretary was all right he replied that it was settled as far as he was concerned. And so on, all the members, each of which reclined under a different tree, acquiesced.

When Haug got back to the schoolhouse the secretary asked, "Well, what success?" Haug said they all agreed. "Well, sir, then the adoption is made." "Now, then," said the secretary, "please let me have a pencil, because I want to write out some sort of a report, but suddenly halted and said, "Mr. Haug, kindly show me how to write the letter 'Y.' It is so long since I have been writing that I am a little puzzled about this letter." Haug complied willingly, but reserved the thought of a particular application of his books to himself.

AMONG BOOKMEN.

Mr. R. H. Allin, is "of age" in the Rand, McNally & Co. register of editorial staff. He has been connected with the educational department more than twenty-one years.

Mr. John C. Ellis, of the American Book Company, claims that he caught a fifteen pound bass last month. There are some members of the fraternity, in Chicago, who are uncharitable enough to say that the bass weighed nearer fifteen ounces.

Mr. R. S. Edwards represents D. Appleton & Co. in southern Indiana. He makes his home at Madison.

Mr. Horatio S. Krans, who has been for some years with G. P. Putnam's Sons as a literary adviser, has just become a member of Sturgis & Walton Company, having joined that company as its secretary.

Mr. E. W. Harvey of D. C. Heath & Co. has been transferred to the eastern Pennsylvania territory. He will live in Philadelphia and will be connected with the New York office.

Mr. Irving S. Cutter, well known in Nebraska and the surrounding states as the representative of Ginn & Co., was recently married at Omaha. The bride is a popular Omaha girl, who for several years was registrar of the Omaha high school.

Recent eastern adoptions of the Gilman writing system include the cities of New London, Norwalk and South Norwalk, Conn.; Bayonne, Jersey City, Princeton and Bridgeton, N. J.; Port Washington and New York City, N. Y.

School Organization and Administration

All who are concerned in the efficient administration of schools will be interested in the latest word of experts, as given in the following books:

INDUSTRIAL SCHOOLS

Education for Efficiency

By EUGENE DAVENPORT, M. Agr., LL.D., Dean of the College of Agriculture, University of Illinois. 192 pages. \$1.00.

A strong, wise appeal for industrial education as a part of the regular school system; especially valuable wherever the study of agriculture is introduced or is under consideration.

HIGH SCHOOLS

High School Administration

By H. A. HOLLISTER, A. M., High School Visitor for the University of Illinois. 391 pages. \$1.50.

A study of high school management in all its bearings; a text-book for normal school and college students, and of practical use to all connected with high schools.

CITY SCHOOLS

Our City Schools

By WILLIAM E. CHANCELLOR. 354 pages. \$1.25.

A remarkable discussion of the management—actual and ideal—of schools in cities of 50,000 population or over; has a real working value for school people.

ALL AMERICAN SCHOOLS

Our Schools

By WILLIAM E. CHANCELLOR. Revised Edition. 452 pages. \$1.50.

A comprehensive, discriminating study of the practical working of our national school system; full of help and incentive to more effective school administration.

The Publishers will gladly give further information

D. C. HEATH & CO., Publishers

BOSTON

NEW YORK

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PROGRAM MATERIAL.

State Supt. R. B. Cousins of Texas has issued a list of topics suitable for conventions of school board members held in connection with or independent of county teachers' institutes. The topics are of general educational interest and can be discussed by both trustees and teachers.

Mr. Cousins suggests that if there are trustees who are exponents of progressive ideas and have worked these ideas into the schools, they should be requested to tell their experiences. Teachers should be called upon for talks which would be interesting and instructive to the trustees. The topics suggested are:

1. How a good school differs from a poor one.
2. The laws governing contracts between trustees and teachers.
3. How to build a good school.
4. How a good school benefits the pupil and the home. How it adds to land values in the neighborhood.
5. A good schoolhouse: (a) How to light it; (b) how to ventilate it; (c) its size and form.
6. The necessity for board meetings, and what matters ought to be discussed at these meetings. When should these meetings be held?
7. What public meetings should be held in the schoolhouse?
8. The value of large schools in comparison with small ones.
9. The relation of good roads to good schools, and how to carry the pupils who live at some distance from the schools to the schoolhouse.
10. Under what conditions can agriculture be most successfully taught in the rural schools.
11. How to take care of school premises. The necessity for better sanitation about schoolhouses. How to beautify schoolhouses and yards. Whose duty is it to look after this business?

12. A mother's club for every school in the county. What can such a club do for the school in the neighborhood.

13. Some schools cannot, and should not, offer high school work. Why?

14. How to provide rural high schools for rural school children.

15. Should a rural high school differ from an urban high school? Why and how?

16. The consolidation of the high school grades of several rural schools into a rural high school. Can this be done? How?

17. Would it be profitable to the county to furnish the county superintendent an assistant? If so, what would be some of the work that the assistant could do, and what would the county superintendent be doing in the time thus saved?

Obtaining Foreign Birth Certificates.

A noticeable feature in recent child labor legislation in the United States has been the increasing emphasis placed upon the proof of age requirements of children who desire to go to work. The affidavit of the parent, formerly accepted as sufficient evidence, having proved worthless in hundreds of cases, has been displaced in many states by statutory provisions requiring better documentary evidence.

While a properly attested birth certificate is generally held to be the most conclusive proof of age, some foreign born children have found it difficult to secure that paper. Accurate information regarding the procedure to be followed it was felt would obviate much of this trouble. This led the national child labor committee of New York City to suggest that the state department at Washington send a questionnaire on the subject to the various American consuls in European countries. As a result of the courtesy of the federal government in adopting this suggestion, complete information is available as to the authorities to be consulted

in the various countries, languages, fees, application forms, etc.

The material has been briefly summarized in a pamphlet which the committee will be glad to send, gratis, to any one interested. Most of the directions given have been tested in New York City with good results.

The national child labor committee, as its name suggests, seeks to give information regarding child labor laws in the various states and in foreign countries, and to aid in the improvement of laws and in their enforcement.

Copies of all its publications are furnished, gratis, on application to Owen R. Lovejoy, general secretary, 105 East Twenty-second street, New York City. Its maintenance is derived from annual memberships and voluntary contributions.

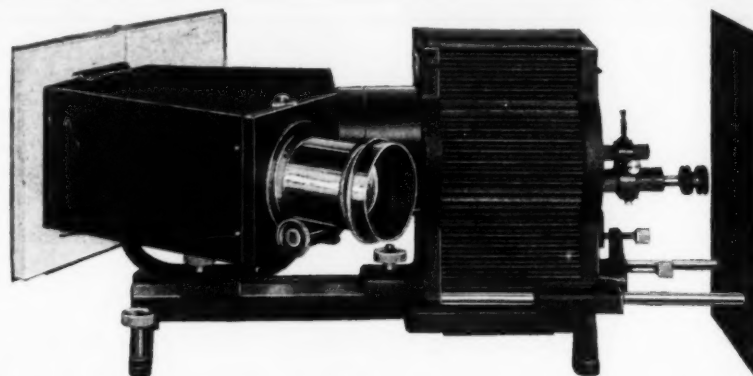
Death of Mr. Small.

Mr. W. H. Small, superintendent of schools at Providence, R. I., died suddenly of heart failure Sept. 15. When stricken he was receiving a lesson in running an automobile.

Mr. Small was head of the Providence public schools since 1902. He was born in 1856 at Provincetown, Mass., and was educated at Dartmouth College.

His career as a school man began in 1878. He held an instructorship in the high school at Hudson, Mass., from 1879 to 1893. He then became superintendent at Palmer, Mass., and four years later at Chelsea. In 1902 he succeeded the late Horace S. Tarbell in Providence.

Mr. Small was widely active in educational societies and was a prolific writer and speaker on professional topics. At the time of his death he was completing a book on "Colonial Schools," compiled after careful research through documents and records of colonial times. His most notable service was the establishment of the first open air school in America.



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¶ Descriptive circular on request.

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Isaac Pitman & Sons, Publishers

31 Union Square, New York

SCHOOL HYGIENE AND EFFICIENCY.

(Concluded from Page 7)

tions. The mental and emotional strain is so great that medical authorities declare that less than ten per cent of pupils after such tests are in a sound and healthy state.

Teachers demand too much written work from pupils under twelve years of age. While the new-born infant may sustain its own weight by the hand grasp for some minutes, that does not argue that the pupil of eight can learn to write as easily or continue to write for as long a period as a pupil of twelve. There is a wide difference between the use of muscles of the fundamental system and the use of those fine, recently acquired accessory muscles weighing not over two ounces, by which the penholder is held. The plan of beginning with large letter forms, and of having these reproduced with the whole-arm movement, is to be commended. But to require so much written material, often under the guise of "busy work," is productive of nervous tendencies of the most aggravating sort.

The materials with which the pupils work should be properly selected. Wasteful tension is wasteful energy. A "scratchy" pen is irritating and mental penholders cannot be easily held. Pencils with soft lead give the best working results. The text book should be printed so as to relieve eye-strain. The use of block type and additional leading is desirable in book-making.

Days of Rest Needed.

The investigation of the physical changes of annular rhythm and for the causes of the increasing inefficiency of the work of the school days from Monday to Saturday indicate two further observations. We are attempting to teach in a year of nine months that which be-

longs to a year of twelve months. In consequence the work is superficially done and the pupil is forced to accomplish his work at the expense of time, content and extent. The opportunities for out-of-door study and training are utilized only by the vacation school. For four months millions of dollars' worth of property and thousands of boys and girls are idle and often worse than idle. For the occupations of vacation mean not loss alone, but the necessity for correction. The week should be divided so that two rest days do not follow consecutively, as in present practice. Midweek or later half-holidays would more evenly and economically distribute the work of the week.

The organization, the management and the equipment of our schools must be judged by the supreme test—efficiency. The great question is: What is the best for the child? School hygiene insists upon the child's highest good as the wisest economy. Time and means, instrument and occasion must be measured by the fact of the needs of the child. The function of the school is to lead, but not to pull; to assist, but not to remove; to feed, but not to gorge; to interest, but not to amuse; to inspire, but not to intoxicate; to counsel, but not to worry; to condition, but not to force; to nurture, but not to supplant; to environ, but not to mechanically nor disproportionately encompass.

The possibilities of the child naturally and philosophically have their limitations. But the school should give him every assistance in actualizing his potentialities and conserve his energetic latencies for effective activity.

The three correlated considerations of school efficiency are the school plant, the teacher, the child. These three; but the greatest of these is the child.

Health Rules.

The Fall River, Mass., board of health has adopted a stringent set of rules for observance in the public schools.

Children with the following diseases must be kept from attendance:

With chicken-pox, until the crusts are all off.

With mumps, two weeks, and longer if the glands are tender.

With whooping cough, while the child whoops.

With German measles, for two weeks.

With measles, until two weeks from the beginning of the sickness.

When there is measles in a family children who have previously had it may be allowed in school. Those who have not had it must be excluded for two weeks from the beginning of the last case.

All children living in houses where there is diphtheria, scarlet fever or smallpox must be excluded from school until they present a permit from the board of health.

A set of rules also has been promulgated for the pupils, and copies are to be pasted in every text book in use, so that the importance of observing them will be impressed on the little ones at every turn. Among the rules referred to are the following:

Do not spit if you can help it. Never spit on a slate, floor or sidewalk. Spitting promotes consumption and other diseases.

Do not put the fingers into the mouth.

Never lick your fingers when turning pages or when counting money.

Plans for an eighteen story commercial high school and administration building, involving an outlay of \$1,500,000, have been submitted to the Chicago board of education. It is intended to erect the structure near the center of the city.

CO-OPERATION BETWEEN SCHOOL, FACTORY AND SHOP.

By Asst. Superintendent Charles P. Megan, Chicago.

A plan of vocational education that is being successfully tried is a union of school and shop. Probably the first scheme of practical co-operation between a school and a number of manufacturers is to be found in Cincinnati. At the university, in connection with the College of Engineering, they have what is called a co-operative course in engineering, and the plan is that the student entering it shall take alternate weeks in the shops, in the city, and at the university. About eighty young men are taking that course, so that each week there are forty in attendance at the university and forty in the shops.

At the University of Cincinnati.

A contract is signed in triplicate by the shop, the university and the boy (represented by his parents), by which his course through the shop is determined. In each shop he begins at the bottom and goes up through the various departments until he reaches the designing and sales offices. The course is six years in length. The regular college course is four years long, and the young man in the co-operative course therefore spends three years in the university and three in the shops. In the college course nothing has been omitted, nothing abridged. On the contrary, some things have been added. The university authorities claim that the class of young men they are dealing with can accomplish more work in three years than others can do in four, and they base this conclusion very largely on examination results.

Applicants for these courses are very carefully selected. A student wishing to take the course must enter the shop on the last day of July preceding his entrance into the university, and remain there a certain period. If he is then recommended by the employer he is accepted by the university. The first year seventy-five applied and forty-five were placed in the shops. When the college opened only twenty-eight were admitted. In the second year, out of 800 applications, fifty were placed in the shops on probation and forty-five accepted for the university. In January last they had over 500 applications for the course beginning last September, and expected fully 2,000. From this number not more than seventy were selected.

These young men are paid for their shop work, beginning at the rate of 10 cents an hour and rising at the rate of a cent an hour every six months. They are paid only for the time in the shop, every alternate week during the school year and every week in the summer except two weeks' vacation. A number of the shops, however, are finding these men so valuable that they are paying them for the time they are at the university. The whole system demonstrates that a young man can be taught engineering in such a way that when he leaves college he has a good practical knowledge of the profession which he has chosen; he has a definite idea of the labor situation; he has good business sense and a thorough knowledge of the scientific principles underlying his profession.

The Fitchburg High School.

The next stage is the adoption of this plan or a suitable modification of it into the high school, and this has now been done at Fitchburg, Mass.

This course, patterned after that of the University of Cincinnati, is a form of an apprenticeship system, whereby boys receive instruction in the shop during one week and instruction in the school the next week. The course is of four years' duration. The first year is spent wholly in the school, and during the other three years the boys alternate weekly between school and shop.

Any boy who is regularly admitted to the high school may, with the approval of his parents, elect this course.

The manufacturers take the boys in pairs, so that by alternating they have, at all times, one of the pair at work. Each Saturday at 11 o'clock the boy who has been at school that week goes to the shop and learns on what particular job his alternate has been working, and how it has been handled, in order that the work may be taken up without delay the next Monday morning.

Shop work consists of instruction in the operation of lathes, planers, drilling machine, bench and floor work and such other machine work, according to the ability of the apprentice, as pertains to the particular branch of manufacture of the shop where the boy is employed. The co-operative school course is as follows:

First year, all school work—

	Periods per week.
English	5
Mathematics: tables and simple shop problems.....	5
Mechanics: simple machines.....	5
Freehand and mechanical drawing.....	5
Current events	2

(Concluded on Page 24)

Economy of Vacuum Cleaning

THE dollars and cents value of health and cost of disease, —preventable disease—is the subject of a novel and interesting study by the New York committee on congestion of population. This study has been made under the direction of Prof. Irving Fisher of Yale. His methods are simple. He enumerates the avoidable diseases, according to the New York health department's classification, counts the number of cases in New York for four years, estimates the number of days' illness according to hospital experience, and counts the deaths. Taking average wages for man, woman, boy and girl, he reaches a stately total of individual and family losses through enforced idleness. Lastly he makes a careful estimate of the capitalized value of the lives of patients of different ages. His figures and estimates are sober. The final summary is a loss of \$166,000,000 in four years. This takes no account of the expenses of sanitation, hospitals and public medical service.

Prof. Fisher has blazed a new trail in medical service. He is demonstrating that public funds expended to educate the public by touching its most sensitive nerve—that leading to the pocketbook—will more quickly and surely lead to the adoption of proper sanitary measures; that the original cost of efficient sanitary devices should be considered as being in the nature of decidedly profitable investments, and not as expense.

Money Value of Dustless Schools

That the proper suppression and removal of the dust contents of public school buildings, by the AERO vacuum methods, is productive of immediate and profitable returns is evidenced by the quick response of the health conditions in schools where this process is put into effect.

The report of the U. S. Commissioner of Education for the school year 1906-7 shows a total enrollment of pupils in the public schools of Milwaukee, for example, of 47,069, and an average daily attendance of 36,642, leaving a daily average of absentees of 11,427. (Similar conditions prevail in all cities and towns everywhere.)

The same report gives the daily cost to the taxpayers, per pupil, as \$0.162 (sixteen and two-tenths cents per day) averaged for the state of Wisconsin, which undoubtedly is lower than the average daily cost in the cities.

In a certain school in Milwaukee the records showed that of all absences, during a certain period in 1906-07, 62 per cent were attributable to illness. During a similar period of 1907-08 the records showed that but 42 per cent were absent on account of illness—a gain of 20 per cent.

In 1906-07 the ordinary sweeping and "dusting" methods were still in vogue in that school. During the period in 1907-08 that is under consideration the building was cleaned by the AERO vacuum method, and neither brush, broom nor duster was used during the entire school year.

Assuming, for the purpose of illustration, that the same daily average of absentees would hold good for both the years above mentioned, viz: 11,427; applying the experience had in this one school to the schools of the entire city, and taking the difference between 62 per cent and 42 per cent of this number, we have a gain, in round numbers, of 2,285 in the daily attendance in the city.

Multiplying the gain by the daily cost per pupil (16.2 cents) gives us \$370.17 per day, and this multiplied by 196 days during which school was actually in session, we have a total gain in health conditions, by reason of dust-suppression and removal, amounting to \$72,553.32 for one year!

Of course, these figures are not accurate—perhaps not even approximate—but this way of looking at the matter will give school authorities a new angle from which to examine the subject of sanitary dust removal when considering the health of the rising generations—the chief assets of the village, city, state and nation.

But in purchasing vacuum cleaning systems it should be borne in mind that up to the present only one system has been developed that is suitable for the peculiar requirements of schoolroom cleaning. That is the AERO special schoolroom cleaning system.

Please also bear in mind that, as far as we have been able to learn, every individual or concern that supplies anything that is called a "Vacuum Cleaner" claims his device is "specially adapted to the cleaning of schools," and that it is "just as good as" the AERO system!

The plant that is good enough for others to imitate is good enough for you to use.

Did you ever figure the original cost, plus the cost of power and maintenance, of the machines that are offered to do approximately what the AERO vacuum cleaning systems will do? We have—you ought to.

AERO (our trade mark) vacuum cleaning systems are made "just a little better than seems necessary." They are not surpassed in efficiency—and they hold the world's record for economy for each of the types constructed by us.

Write for literature concerning our special school equipment.

State whether you have high-pressure steam (50 pounds and up, boiler pressure) or electric power. If the latter, state whether direct (giving voltage) or alternating (giving cycles, phase and voltage).

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You should be familiar with these two notable series.

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after an examination in proof form, by Atlanta, Ga., St. Joseph, Mo.,
and Asheville, N. C.

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NEW BOOKS.

(Concluded from Page 5)

contains five useful books for children. The series makes a direct appeal for right, wholesome living by showing the consequences of good and bad habits and customs. Among other things treated in this book in the case of accidents is the new method of artificial respiration which has been adopted in England and other European countries; the water treatment of burns until the doctor comes; the necessity of warning children about crossing streets; the fact that mad dog bites are the result of provocation; the futility of fear of snakes and lightning; the importance of caring for little cuts and burns, etc. The value of the useful book is heightened by some fine photographs.

Teaching Children to Study.

By Olive M. Jones, Eleanor G. Leary and Agnes E. Quish. Cloth. 193 pages. Price, 80 cents, net. The Macmillan Company, New York, Chicago.

The value of this little work seems to lie in the systematic way the authors go about the important work of teaching children to study. The group system is applied, with the aim of giving the child habits of self-reliant study and of securing for the exceptional child, either the abnormally bright or the abnormally slow, teaching adapted to his individual needs. A clear and practical exposition of the group system is offered, together with definite suggestions as to the details of its plan and management.

A Student's History of American Literature.

By William Edward Simonds, Ph. D. Cloth. 383 pages. Illustrated. Price, \$1.10. Houghton-Mifflin Company, Boston, New York, Chicago.

"Let no teacher of American literature," says the author of this volume in his preface, "consider it a part of his professional duty to depreciate or deprecate the work of our American writers. It represents a substantial and respectable achievement; it may well inspire a reasonable patriotic pride in the minds of our youth; it is, at the present time, as full of promise for literary art in the future as is the national literature of any land." This is exceedingly well said. The subject matter of this history of American literature is divided into the following parts: Early colonial literature, 1607-1700; the eighteenth century; the beginning of the nineteenth; philosophy and romance; the New England poets; general literary development of recent years. It should prove a teachable, interesting text.

The Management of a City School.

By Arthur C. Perry, principal of public school 85, Brooklyn, N. Y. 339 pages. The Macmillan Company, New York.

Amid the many works on school and classroom management there appears to be no book written especially for the guidance of the principal until the present volume appeared. It is entirely practical. It deals with the relation of the principal and the state, the public, the authorities, the teachers, the pupils. Several chapters are devoted to the pupils' physical welfare, their scholastic progress and moral devel-

opment in so far as these conditions are influenced by the principal. The last chapter deals with the principal's qualification for the office, his adjustment to his position, his personal growth and the position itself. The work can be recommended to those principals especially who are new to their office. These will find many valuable suggestions.

All's Well That Ends Well.

By William Shakespeare. Edited by Charlotte Porter and Helen Clarke. 216 pages. Cloth. Thomas Y. Crowell & Co., New York.

This play has the unenviable distinction of being among the worst printed plays in the folio of 1623. The painstaking researches of these editors have cleared up many mooted points. The etching facing the frontispiece is that of the jubilee memorial fountain, Stratford-on-Avon, a gift from Mr. G. W. Childs, Philadelphia, upon the occasion of the jubilee tercentenary celebration.

A Primer of Nursery Rhymes.

By Leota Swem and Rowena Sherwood. Cloth. 124 pages. Price, 30 cents. Houghton-Mifflin Company, Boston.

Who should know what is interesting to little tots, if it be not a kindergarten director and a primary teacher? They do know that familiar nursery rhymes, the little classics of childhood, are interesting, so they have carefully graded many of the more simple verses to enable the "littlest ones" to read and enjoy their own dearest treasures. New words have been introduced gradually. The numerous illustrations show delightful situations full of life and action. Even the frontispiece has a picture of six wee ones excitably playing teeter.

How to Identify the Stars.

By Willis I. Milham, Ph. D., Field memorial professor of astronomy in Williams College. Cloth. Diagrams. 38 pages. Price, 75 cents, net. The Macmillan Company, New York, Chicago.

A dark blue cover with the title and a grouping of stars in silver forms a harmonious exterior for the subject matter within. The primary purpose of the book is "to serve as a guide in taking the first steps in learning the stars and constellations," and, both in what is stated and in what is omitted, it seems well calculated to achieve this purpose.

A list containing the names of the constellations, the Latin genitive of the name, the meaning of the name, and the name of the originator of the constellation is full of interest. The names of forty-seven of these are credited to Claudius Ptolemy, who in the second century A. D. carefully collected and summarized the astronomical learning of his time. Internal evidence from the constellations themselves, early writings, and inscriptions of various kinds, makes us reasonably certain that an acquaintance with these groups probably originated among peoples living under the clear skies of the Euphrates and the Nile valleys, and was practically complete as early as 3000 B. C.

Learners are then told of the ways in which stars are designated, of their color and number, and of a good way of locating stars and constellations. The charts and maps are attractive and must prove most helpful.

A list of valuable books is given as an aid to those who may be eager to acquire a more extended knowledge of this most ancient of sciences.

TEXT BOOK NEWS.

(Continued from page 14)

Civil Government Simplified, by J. J. Duval, has been adopted for every county in the state of California. The publishers are the Whitaker & Ray-Wiggin Company.

Newark, O. Henderson's chemistry has been adopted to replace Remsen's.

South Grand Rapids, Mich. The school board has adopted the Dodge geographies, published by Rand, McNally & Co., Chicago.

San Francisco, Cal. The board of education has adopted "The Legend of Sleepy Hollow" and "Rip Van Winkle" and Powers' "Poems for Memorizing," published by the Whitaker & Ray-Wiggin Company.

Kennewick, Wash., has adopted the Milne Progressive Arithmetics, Inglis and Prettyman's First Book in Latin, Baker & Inglis' Latin Composition and Cheyney's English History.

The Sensenig & Anderson Arithmetic has been adopted by the city of Boston upon recommendation of a committee of twelve principals and teachers. The recommendation was unanimously approved by the board of superintendents and school committee.

Freeport, Ill. The board has adopted Mowry's Ancient History, Coulter's Botany, James & Sanford's United States History, Redway's Commercial Geography, Powers & Lyons' Business Arithmetic, Moore & Miner's Bookkeeping.

Waynesburg, Pa. Steps in English adopted.

According to press dispatches from Newport, Ark., suit was filed on August 13 in the Jackson Circuit Court by R. E. Jeffrey, prosecuting attorney, and Hal. L. Norwood, attorney general, for the state of Arkansas, against the American Book Company, for alleged violation of the anti-trust act, asking the exacting of fines amounting to \$2,000,000 and the ouster of the defendant company from doing business in that state.

Scott-Southworth Lessons in English, I and II, published by Benjamin H. Sanborn & Co., have been unanimously adopted by Providence, R. I., and New Bedford, Mass.

Springfield, Mass. The high school has adopted the Shackford-Judson rhetoric, published by Benjamin H. Sanborn & Co.

Newark, O. Zaner & Bloser's writing books adopted.

Hannibal, Mo. Applied Arts drawing books have been adopted.

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HORSFORD'S Acid Phosphate

(Non-Alcoholic.)

Teacher—Johnny, can you tell me how iron was first discovered?

Johnny—Yes, sir. I heard pa say yesterday that they smelt it.

Modernizing It.

Teacher—Willie, how did Washington follow Cornwallis?

Willie—I suppose he subscribed to the paper for which Cornwallis was writing the "exclusive story" of the fight.—Puck.



His Kick.

"And what do you think of the normal training for teachers?"

"I'm afraid it teaches them such up to date methods that the average village youth wouldn't know how to propose marriage to them."

Ein Geweckter Schüler.

Herr: Sagen Sie, Herr Lehrer, ist denn Hübbers kleiner Peppi wirklich ein so geweckter Schüler, wie sein Vater immer behauptet?

Lehrer: „Allerdings; er muß in jeder Unterrichtsstunde wenigstens dreimal aus dem Schläfe geweckt werden.“

English?

A young American woman, who has for some years been a teacher of English in Vienna, received a note not long since from one of her pupils which caused her to question whether she was divinely appointed to teach her mother tongue to the painstaking Austrian. What conclusion she has reached is not known, but the evidence against her, as set forth in the exhibit here printed, is strong.

The pupil's brother had just died, and the teacher had written her a letter of sympathy. This is the reply she received.

"Expensive Miss.—Thank you for your kind participation in my brother's death. Pleast do not expectorate me at my next lesson.—Yours, etc."

A Good Forgetter.

"Johnny," asked the teacher, "how much is seven times nine?"

"I don't remember."

"Who discovered America?"

"I did know, but I forgot."

"What is an isthmus?"

"I don't remember."

"You don't remember! Take your seat, sir. You'll never amount to anything in this world."

But he did. He is now drawing \$75,000 per year as chief forgetter for a large corporation.

Her Text Book.

One morning, says the New York Evening Post, an Italian, leading his little daughter by the hand, entered a public schoolhouse in New York and stood in the hall, his hat tucked under his arm and his eyes seeking the passers-by in amiable appeal.

A teacher came out of her room, and, happening to notice him, asked his errand. He pushed the girl eagerly forward.

"She wan' go to school," he answered, with many bows. "She has book," he tapped the book under the girl's arm, "and slate," pointing to her hand.

"Oh, I see!" said the teacher, smiling. "You have brought her all prepared. Can she read?"

The father shook his head, smiled and looked into the lady's eyes in a deprecating way, repeating softly, "she wan' go to school."

The teacher took the book and looked at it. She found it old and worn and neither a reader nor an arithmetic. It was a "Social Directory of the Year 1900."

Abreast of the Times.

"How is your son getting along?" we asked the old acquaintance.

"First rate. Making money hand over fist."

"That's good. Let's see; he graduated as a veterinary surgeon, didn't he?"

"Yes, but after he tried to practice for a while he changed to an automobile repairer."

DID YOU EVER REALIZE

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The same process that makes pencil leads fine and smooth makes them tough and durable.

Just to see how good a school pencil can be, write for samples of Dixon "High School."

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JERSEY CITY, N. J.

Not Noah.

Teacher—Johnnie, who compiled our first dictionary?

Johnnie—Daniel Webster.

Teacher—No, it wasn't Daniel, it was Noah.

Johnnie—Come off, teacher; Noah compiled the ark.—*The Circle.*

Changed His Mind.

A young officer at San Francisco had been ordered to the Philippines. According to a western paper he received the following telegram from the war department at Washington:

"You can go to New York, and sail on transport that goes by Suez."

The officer replied: "Would prefer to cross Pacific direct."

Then the department telegraphed him again: "Transport will make good time; has sixty women school teachers on board."

The young lieutenant answered: "Save me a berth on transport."

A Nice Differentiation.

"What, then," asked the professor, "is the exact difference between logic and sophistry?"

"Well," replied the bright student, "if you're engaged in a controversy it's just the difference between your line of argument and the other fellow's."



Comfortable, at Least.

Uncle—I hope you were a good boy in school today.

Johnny—No, I wasn't.

Uncle—You haven't been very bad?

Johnny—No-o. But I had lots of fun.

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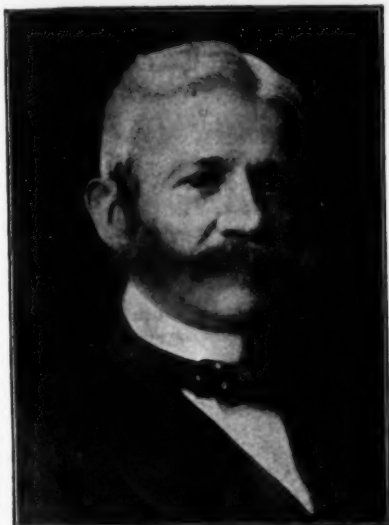
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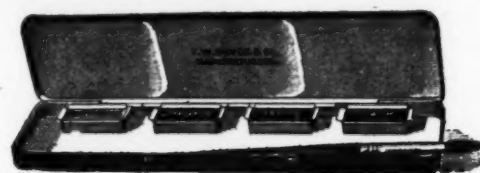
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New Connecticut Laws.

Seven laws modifying the Connecticut school system in important particulars are the result of the labors of the educational commission appointed to codify the school laws. These went into effect with the new school year:

1. The state board of education has been re-organized.

2. The scope of territorial supervision has been enlarged, though not in the manner proposed by the commission. It is believed that this will help the smaller schools, and, in particular, that it will bring men into closer contact with schools in which the teaching is done exclusively by women.

3. A definite scholastic standard has been established which all children under sixteen must attain before they can be released to undertake regular labor.

4. The number of towns eligible for the pecuniary assistance of the "average attendance grant" has been increased and provision has been made for distributing this money on a plan which seems fairer than the old one.

5. An act, with accompanying appropriation, has been passed, intended to provide trained teachers for the small towns. This is effected through the establishment of prize scholarships in the normal schools, the beneficiaries to be selected by the state board from the small towns, and to be trained under an agreement that they shall teach not less than three years in the small towns.

6. Two public trade schools are to be established forthwith by the state board in localities selected by that board.

7. By the adoption of the "town management" bill the school districts are now reduced to those found in cities and boroughs in Connecticut. In most of the municipalities the ed-

ucational questions are so interlocked with financial questions that the abolition of districts is likely to proceed slowly.

Among the bills recommended by the commission, which failed of passage, were a teachers' certificate measure and teachers' pension law.

COMING CONVENTIONS.

Oct. 8-9. Eastern Illinois Teachers' Association, at Danville, Ill.

Oct. 14-15-16. Michigan Upper Peninsula Teachers' Association at Ishpeming. Mr. J. B. Faught, secretary, Marquette, Mich.

Oct. 28-29. Kansas State Teachers' Association, at Topeka; C. S. Risdon, president, Independence.

Oct. 28-30. Maine State Teachers' Association, at Lewiston; Supt. W. H. Brownson, Portland, president.

Oct. 28-30. University Convocation of New York state, at Albany.

Oct. 28-29-30. Minnesota Educational Association at Minneapolis. J. M. Guise, secretary, Minneapolis.

Nov. 1-2-3. South Dakota Teachers' Association at Lead. J. Fred Olander, corresponding secretary, Pierre, S. D.

Nov. 3-5. Nebraska State Teachers' Association, at Lincoln; A. L. Caviness, president.

Nov. 4-6. Wisconsin Teachers' Association, at Milwaukee; John T. Kelly, president, Juneau; Katherine R. Williams, secretary, Milwaukee.

Nov. 4-5-6. Indiana State School Board Association, at Indianapolis; C. F. Lammers, secretary, Greencastle.

Nov. 4-5-6. Iowa Teachers' Association at Des Moines. O. E. Smith, secretary, Indianola, Ia.

Nov. 6. The North Dakota Association of Science and Mathematics Teachers at Mayville. Clyde R. Travis, secretary, Mayville.

Nov. 12-13. Central Ohio Teachers' Association, at Dayton.

Nov. 26-27. South Kansas Teachers' Association at Wichita, Kans. A. D. Taylor, chairman executive committee, Wichita.

Nov. 26-27. Southwestern Indiana Teachers' Association at Evansville. Supt. William O. Wilson, secretary, Mount Vernon, Ind.

Nov. 26-27. Southwestern Oklahoma Teachers' Association; place not selected; Miss A. E. Lane, secretary, Hobart, Okla.

Dec. 1-3. National Society for the Promotion of Industrial Education, at Milwaukee; Fred W. Sivyer and C. F. Perry, local committee.

Dec. 27-28-29. Arkansas State Teachers' Association, at Little Rock; Mayo Roscoe, recording secretary, Dewitt, Ark.

Dec. 27-30. Colorado Teachers' Association, at Denver.

Dec. 28-29-30. Illinois State Teachers' Association, at Springfield; Miss Caroline Grote, secretary, Macomb.

Dec. 28-29-30. Southern Educational Association at Charlotte, N. C. H. E. Bierly, secretary.

Dec. 28-29-30. Missouri State Teachers' Association, St. Louis; B. G. Shackelford, president, Cape Girardeau; E. M. Carter, secretary, Jefferson City.

Dec. 28-29-30-31. North Dakota Teachers' Association at Minot. Clyde R. Travis, secretary, Mayville, N. D.

Dec. 29-30. Southeast Kansas Teachers' Association, at Pittsburg, Kans.; Supt. A. H. Bushey, Pittsburg, chairman executive committee.

CO-OPERATION BETWEEN SCHOOL, FACTORY AND SHOP.

(Concluded from Page 19)

Second year, school and shop work—

English	4
Shop mathematics	5
Physics	4
Mechanism of machines.....	4
Freehand and mechanical drawing.....	8

Third year, school and shop work—

English	4
Shop mathematics	5
Chemistry and physics.....	3
Mechanism of machines.....	4
Commercial geography and business methods	1
Freehand and mechanical drawing.....	8

Fourth year, school and shop work—

English	4
Civics and American history.....	2
Shop mathematics	5
Mechanism of machines.....	5
Freehand and mechanical drawing.....	5
Electricity and heat.....	4

The course was started the last week in August, 1908, when the boys went to work in the shops. The school course opened Sept. 8, at the beginning of the regular school year. Twenty boys are enrolled, divided as follows: two pattern-making, two drafting and sixteen machinists.

The manufacturers have expressed great satisfaction with the plan, some of them having expressed the opinion at this early date that these boys are superior to those formerly employed. They are boys who have their eyes and ears open, who think and ask questions of an intelligent nature.

In addition to the regular school work an "industrial society" has been organized for mental and social advancement. This society meets once a month and is conducted by the boys themselves. It is planned to have the manufacturers and others give talks of an instructive nature, to be followed with discussion by the members, and from time to time a social affair will be given at which other than members may be invited.

With the course mapped out it is expected that a thinking, progressive mechanic will be secured—one who will be able to reason things out for himself, and thereby derive for himself the greatest advantage that can be attained in his life work.

A Textile School.

The Ludlow textile school, just entering on its second year, was established to solve a definite industrial problem and is of interest from the fact that it is the logical outcome of the preceding methods. First, industry in the university; second, industry in the high school; and, third, industry in the elementary school.

Boys fourteen years of age are admitted to the school and devote half of each day to work

in the mill and the other half of the day to school work, receiving pay from the mills. Most of the subjects taught in the public schools are taught in this school, including history, geography, arithmetic, manual training, etc. The main difference between this and the public schools is that each subject is specialized. For instance, when the pupils come to a great inventor they study his life, get a good idea of the use and working of his more important inventions, learn what effect the inventions have had on the industrial development of the world, and so on. In geography, when they come to a country where hemp, the principal fiber used in making the twine and sacking made by the Ludlow Association, is grown, they make a special study of the country, learning of its climate, its position with respect to the lines of commerce, the race and character of its inhabitants, labor conditions, etc. In the course in English correct speech and ability to read understandingly have been sought after rather than any comprehensive knowledge of the rules of grammar. In arithmetic a novel departure was begun last year. Principal Eaton had not been in charge of the institution very long before he saw that a special arithmetic, with its definitions and its problems in mill subjects, would aid greatly in carrying out the purpose for which the school was founded. With the help of one of the mill superintendents he has compiled an arithmetic entirely along these lines.

Columbia Steel Desks.

Since January, 1909, the Columbia School Supply Company has been manufacturing and marketing its new sanitary steel adjustable school desk as the leading item in its sanitary steel line of furniture. Reports from the company indicate that sales have far exceeded all expectations. Although the steel department of the company is working twenty-four hours a day, the capacity is taken up for two months in advance.

Orders come not only from boards of education in the large number of cities, but from rural districts as well. The United States government has ordered a consignment for new schools in the Panama canal zone, and the educational department of Porto Rico has placed orders.

The chief reason why the United States government made its purchase was because there is absolutely no breakage in the shipment and use of Columbia steel desks. The frame will endure any usage. Moreover, the freight rate is less, as the weight is lighter and the classification lower. The fact that the desks are adjustable, fireproof, sanitary and indestructible wins for them consideration among careful schools boards who have endeavored to obtain these qualities in furniture for their new buildings. The Columbia School Supply Company is arranging to greatly increase its capacity for manufacturing these desks. The trade, which seems assured for the coming season, makes this necessary.

The Denkman library at Rock Island, Ill., is being equipped with the Hahl automatic clock system.

Hahl automatic-pneumatic clocks, with program bells, have been installed in the new Milwaukee normal school.

State Normal school, Milwaukee, State Normal school, La Crosse, new high school, Painesdale, Mich., city school and university buildings, Champaign, Ill., city schools, Burlington, Wash., Ford City, Pa., and Salt Lake City, Utah, have adopted the Johnson window shade adjusters for regulating light and ventilation. They are growing in favor in the equipment of all modern school buildings. Sample will be sent to any school board by addressing the manufacturer, R. R. Johnson, 161 Randolph street, Chicago, Ill.



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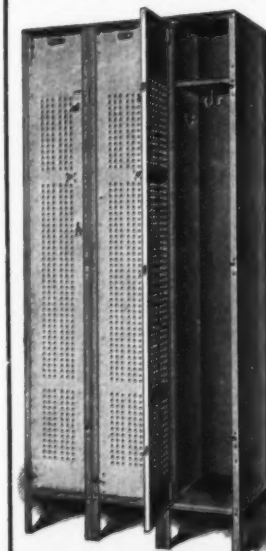
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THE COMMON PEOPLE IN THE ADMINISTRATION OF PUBLIC EDUCATION.

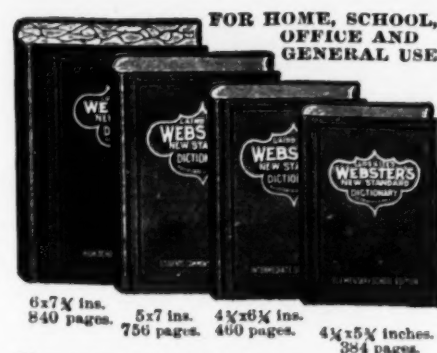
The state is the unit of educational organization and management in the United States. The origin of the public schools came from local development and needs and not from state legislation or construction. The movement was for the benefit of the individual and for society and not for patriotism, religion or scholarship. The home needed the school to co-operate economically in this work and do what it did not have time to do. The development from the simple to the complex came with the expansion of state control and supervision, but the work itself depended solely for success upon the people themselves.

Democratization is important in America if public education is to prosper. Any departure from this has not been in accordance with the genius of our government. It is necessary to have active patrons with authority to conduct and to improve if popular education is to prosper. The more the voice of the people is heard, the better for the general welfare of the community and also for the state. Where the people are not brought into active participation, there popular education does not exist and the ambition of the masses to obtain culture and training is very meager and uninspiring.

Centralization is against democratization. The power of the people is gradually being taken away in some states by giving the initiative to state officers, state boards or state higher educational management. All these efforts show quick returns of certain desirable results, but they are the beginning of what will destroy the popularity and permanency of public education, as the people need the training that the conduct of education demands in order to be even good and enthusiastic patrons. Arbitrary standards, state inspection, dictation of outside authorities, dominating of elementary and secondary education by higher education should not be encouraged or advised. The public schools are not conducted for preparing for more education, but for more effective living. The education of the present must be made more industrial, more practical and more effective for the personal development, even if less cultural and ornamental and thus less adapted to fitting for college.

The hope of America depends upon the intelligence, the capability, the practicability and the power of the individual man that combines to make up the masses. These are the ones who decide elections, who decree prosperity of industrial enterprises and determine the destiny of liberty and morality. In the great cities where educational management is not democratized and where it may not be able to be done because of untoward conditions are the places where republican principles and government are a failure because the power of the individual is not regarded. The expert and the dictator should not substitute for the people, because by such adoption the classes receive preference to the masses. The masses in school and the masses out of school both need the training that popular education and democratic government are able to give, and our popular system of education should regularly rely upon these principles and policies.—Pres. Homer H. Seerley, Cedar Falls, Ia.

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A Record in School Construction.

The state of Arkansas constructed 299 school-houses, or one for practically every working day during the school year 1908-09, according to the report of the state educational department.

Last year more school buildings were constructed than during any previous year, while the amount expended was greater than that of any former year with the exception of 1907, when expensive buildings were constructed in Hot Springs, Pine Bluff and other large cities of the state. Of the 299 schoolhouses 273 are frame buildings and 26 were constructed of brick. The total cost of these buildings was \$452,167.

The figures also show that last year was perhaps the first since the admission of Arkansas to the Union that no log schoolhouse was erected in the state.

According to the figures, there are 6,008 school buildings in the state, 168 brick, 5,696 frame and 144 built of logs. The property is valued at \$5,544,779 and the equipment at \$722,563, the total valuation being \$6,067,342. The number of buildings enclosed is 633.

The buildings constructed last year are considered superior in character to many of those built in former years, the amount expended upon their construction adding much to the average value of the school buildings in the state. Previous to last year the average value of the state's school property was \$889. The costly buildings erected last year increased the average value to \$1,512.

New Dictionary Edition.

Of particular interest to students and educators, because of its encyclopedic features, is the new "Students' Common School Edition" of Laird & Lee's Webster Standard Dictionary. The volume contains not only the usual vocabulary, but also dictionaries of musical terms, historical, geographical and biblical names and classical and biographical lists.

Common foreign phrases are listed with translations. Several pages are devoted to an explanation of English word-building and scientific etymology, lists of suffixes, prefixes and stems. Rules for orthography, proof reading and the metrical systems are given.

The new frontispiece, presenting a portrait of Noah Webster, is especially attractive, as well as the two full-page colored plates showing the Eastern and Western Hemispheres. Besides these there are sixteen full-page plates on subjects of vital importance to the scholar, such as mathematical and geometrical planes and angles, skeletons of man and gorilla, characters and symbols in the arts and sciences.

A distinguishing feature of the Laird & Lee's Lexicons is their up-to-dateness. Commencing on page 675 of this edition will be found a supplement containing new words and definitions which have recently come into use in connection with the sciences, new inventions, etc. The books certainly are well worth the price asked for them.

The book is bound in black silk cloth, stamped in gold, and sells for 75 cents, net.

Young & Jackson's algebra, published by D. Appleton & Co., New York, has been recently adopted in the following high schools: West Chester, Swarthmore and Easton, Pa.; Portland, Me., and Grand Rapids, Mich.

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Introductory orders from such schools as Heald's Bus. Colleges, Stockton and Oakland, Calif., and Reno, Nev.; Davis Bus. Coll., Toledo, Ohio; Binghamton, N. Y. School of Bus.; Okla. State Univ.; Kennard's Polytechnic Bus. Coll., Los Angeles; State Agricultural Coll. of Utah; Atlanta, Ga., High School; Turkio, Mo., Coll.; White's Bus. Coll., Chicago; Leech's Actual Bus. Coll., Greensburg, Pa.; Alva, Okla., High School; Franciscan Sisters, Manistique, Mich.; Graceland Academy, Lamoni, Ia.; Ironwood, Mich.; High School; Grand Island, Neb., Coll.; Coldwater, Mich.; High School; Abbott School of Shorthand, Chicago; Brown's Bus. Coll., Youngstown, O.

The Mt. Vernon, N. Y., High School, winner of every event in the shorthand contest with three other High Schools (reported on Page V of the July number of the Phonographic World), teaches Barnes' Shorthand and has ordered for next term.

The nineteenth annual order has been received from Washington, D. C., for the Business High School.

BARNES' TYPEWRITING INSTRUCTORS

are used in such schools as Bryant & Stratton Bus. Coll., Buffalo; Butler, Pa., Bus. Coll.; Springfield and West Springfield, Mass., High Schools; Wichita, Kans., Bus. Coll.; Atlanta, Ga., High School; Missouri State Normal School, Warrensburg; Ironwood, Mich., High School; Carthage, Mo., High School; Peoria, Ill., High School; College Park, Ga., Military Academy; Southern Shorthand & Bus. Univ., Atlanta, Ga.; Sheboygan, Wis., High School; Harrisburg, Pa., Bus. Coll.; Lima, Ohio, Bus. Coll.; Denver Normal & Prep. School; Union High School, Orange, Calif.

THE ARTHUR J. BARNES PUBLISHING CO. ST. LOUIS

**Alabama.**

Gadsden—School will be erected. Mobile—Plans will be received for 8-room school. Prichard—2-room school will be erected.

Arizona.

Holbrook—School will be erected.

Arkansas.

Springdale—Plans are being prepared for high school; \$12,000.

California.

Santa Ana—2-story high school will be erected. San Jacinto—High school will be erected. Hollywood—Propose issuance of bonds for erection of polytechnic school. Pomona—Arch. Robt. H. Orr has plans for high and two grammar schools. Escondido—Arch. W. S. Hebbard, San Diego, has plans for 8-room school; \$15,000. Beaumont—Contract was let for grammar school; \$18,000. Bonds, were voted for high school. San Leandro—Bids will be advertised for Union Grammar school. San Francisco—Arch. Julius Krause has plans for 8-room school. Vallejo—Propose erection of high school.

Colorado.

Alamosa—School will be erected. Sterling—Bonds were voted for two schools. Eaton—High school will be erected; \$30,000. Colorado City—High school will be built.

Connecticut.

Mystic—Arch. Walter Crabtree, New Britain, has plans for 3-story school. Berlin—\$32,000. Bonds, were voted for 8-room school. New Haven—School will be erected.

Dist. of Columbia.

Washington—12-room school will be erected.

Florida.

Jacksonville—4-room school will be erected.

Georgia.

Hazlehurst—Arch. L. A. H. Koeth, Wilmington, has plans for 2-story school; \$10,000.

Illinois.

Rock Island—Arch. O. Z. Cervin has plans for 8-room school. Sadorus—Arch. Spencer & Temple, Champaign, have plans for 4-room school; \$8,000. Joliet—Propose erection of school. Edwardsville—Contract was awarded for school. Chicago—Site has been secured for school. Aurora—Site has been selected for high school. Roanoke—Propose erection of school. Eureka—\$11,000. Bonds, were voted for school.

Indiana.

Cicero—2-story school will be erected. South Bend—Propose erection of school. Gwynneville—5-room school will be erected. Rockville—Two schools will be erected. Elkhart—Parochial school will be erected. Indianapolis—Plans have been prepared for 10-room school. Evansville—Site will be purchased for Holy Trinity Academy.

Iowa.

Stout—School will be erected. Armstrong—Bids were received for school. Storm Lake—Bids were received for school. Iowa Falls—Edgewood school of Industrial Arts will be erected.

Kansas.

Clifton—Arch. Nielson & Chandler, Topeka, have plans for 2-story school; \$20,000. Leonardville—Arch. J. C. Holland & Son, Topeka, have plans for 2-story school; \$12,000. Medicine Lodge—School will be erected. Pratt—School will be erected. Tyro—Contract was let for school; \$6,000.

Kentucky.

Utica—County high school will be erected. Whitesville—County high school will be erected. Louisville—Plans have been prepared for boys' high school.

Louisiana.

New Orleans—Primary school will be erected. 14th ward; \$25,000. Baldwin—Propose erection of school. St. Bernard C. H.—Site has been secured for school. Hammond—Propose erection of school. Boyce—Propose erection of school; \$15,000.

Massachusetts.

Ludlow—High school will be erected. Attleboro—School will be erected. Beverly—School will be erected; \$80,000. Rockland—Propose erection of school.

Michigan.

Croswell—\$20,000. Bonds, were voted for school. Farmington—Arch. Fisher Bros., Pontiac, have plans for one-story school. Lake City—School will be erected. Grand Rapids—2-story building will be erected for School of Christian Instruction. Saginaw—Plans have been drawn for school.

Minnesota.

Red Wing—2-story school will be erected; \$10,000.

Missouri.

Kansas City—2-story parochial school will be erected. Columbia—Arch. Wm. B. Ittner, St. Louis, has plans for 3-story high school. Washington—Arch. Saylor & Seddon, Kansas City, have plans for 2-story grade school; \$6,000. Springfield—School will be erected; \$25,000. Kansas City—10-room school will be erected.

Montana.

Boulder—County high school will be erected.

Nebraska.

Brunswick—Arch. J. R. Smith, University Place, has plans for 2-story school; \$9,000. Tecumseh—School will be erected. Broken Bow—High school will be erected; \$35,000. Shelby—School will be erected. Omaha—Site has been purchased for school.

Nevada.

Las Vegas—18-room school will be erected; \$30,000.

New Jersey.

Rutherford—Arch. Taylor & Mosely, New York, have plans for 2½-story school; \$60,000. Washington—Arch. Hyman Rosensohn, Newark, has plans for 3-story preparatory school; \$100,000. Crosswick—4-room school will be erected. Bloomfield—Brookdale school will be erected. New Brunswick—School will be erected; \$40,000. Chatham—Plans have been submitted for school. Camden—Plans have been prepared for school. Palmyra—School will be erected. Cape May C. H.—High school will be erected. Kearney—16-room school will be erected.

New York.

Binghamton—Arch. Squires & Wynkoop, New York, have plans for technical high school. Ellington—School will be erected. Rochester—Parochial school will be erected. Jamestown—School will be erected; \$50,000.

North Carolina.

Canton—Contract was let for school. Durham—School will be erected; \$10,000. Greensboro—Contract was let for school.

North Dakota.

Orr—2-story school will be erected. Forbes—School will be erected. LaMoure—School will be erected. Sheyenne—Plans have been completed for school.

Ohio.

Winchester—6-room school will be erected. Canal Winchester—Plans are being prepared for 6-room school. Sycamore—\$16,500. Bonds, were

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voted for school. Wakeman—School will be erected. Lima—School will be erected. Columbus—6-room school will be erected. Miller City—School will be erected.

Oklahoma.

Boswell—Arch. Hicks & Co., Durant, have plans for 2-story school. Vinita—Arch. Robt. J. Church has plans for high school and grade school. Randlett—Arch. T. L. Brodie, Lawton, has plans for 3-story school; \$11,000. Blanchard—2-story school will be erected. Caney—Two 1-story schools will be erected. Phillips—Arch. John Tulloch, Sherman, has plans for school. Woodward—High school will be erected; \$55,000. Muskogee—Contract was awarded for Colored high school. Temple—Plans have been prepared for school. Binger—School will be erected. Verden—6-room school will be erected. Hinton—School will be erected; \$12,000. Quinton—School will be erected; \$15,000. Perry—School will be erected. Sulphur—High school will be erected; \$20,000. Ward school will be erected.

Oregon.

Portland—Contract was let for high school. Pendleton—Plans have been prepared for school; \$18,000.

Pennsylvania.

Chambersburg—High school will be erected. Independence—Plans have been drawn for school. DuBois—High school will be erected. Donora—11-room school will be erected; \$40,000. Harrisburg—Plans have been prepared for technical high school.

Rhode Island.

Natick—School will be erected.

South Carolina.

Hampton—Joint school will be erected; \$20,000. Lykesland—School will be erected. Charleston—Bids were opened for colored industrial school.

South Dakota.

Volin—Four-room school will be erected.

Tennessee.

Fayetteville—High school will be erected. Henning—Contract was awarded for school. Memphis—School will be erected.

Texas.

Lueders—Eight-room school will be erected. Anna—Arch. Sparger & Peters, Bonham, have plans for 2½-story school. Fort Worth—Four-room school will be erected at Sycamore Heights. Alpine—Arch. A. O. Watson, Austin, has plans for school. Harrold—Arch. J. A. White, Vernon, has plans for two-story school; \$10,000. Dawson—Arch. Scott & Pearson, Waco, have plans for two-story school. Van Alstyne—Arch. John Tulloch, Sherman, has plans for school. Blossom—



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End View.



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Archts. Barry & Smith, Paris, have plans for two-story school. Royston—Archit. H. Westmoreland, Hamlin, has plans for two-story school. Mount Vernon—School will be erected; \$15,000. Huntsville—Contract was let for manual arts building; \$20,000. Jacksonville—\$25,000, bonds, were approved for erection of school. San Marcos—Contract was let for Southwest State Normal School. Venus—Contract was let for two-story school. Angleton—School will be erected; \$17,000. Ballinger—Two schools will be erected. Harrold—Two-story school will be erected. Dayton—Contract was awarded for school; \$10,000. Pottsboro—School will be erected.

Utah.

Vernal—Two-story school will be erected; \$25,000.

Vermont.

Enosburg Falls—Contract was let for school.

Virginia.

Mathews C. H.—High school will be erected; \$10,000. Port Haywood—School will be erected; \$4,000. Richmond—Plans are being prepared for Hanover street school.

Washington.

Starbuck—Contract was let for school. Puyallup—Contract was let for high school.

West Virginia.

Parkersburg—Plans have been accepted for Glenville State Normal.

Wisconsin.

Cassville—Archts. W. R. Parsons & Son Co., Minneapolis, Minn., have plans for two-story school; \$20,000. Colby—Archit. John D. Chubb, Chicago, Ill., has plans for two-story school. Unity—Two-story school will be erected; \$12,000. Campbellsport—Propose erection of high school. Brussels—School will be erected. Waupun—Propose erection of high school. Athelstane—School

will be erected. Ringle—Joint district school will be erected.

Go Up Ahead, Johnny.

Once upon a time an inspector was examining a very youthful class of Scotch boys, and among other subjects he requested the teacher to ask her pupils a few questions in nature knowledge. Desiring her class to do her honor she decided upon the simple subject, "Chickens."

"Now, children," she said, "I want you to tell me something very wonderful about chickens." "How they get out of their shells?" promptly responded one little fellow.

"Well," said the teacher, "that is, of course, wonderful; but I mean something more wonderful still."

There was a silence for a few seconds. Then up spoke little Johnny. "Please, ma'am, it's mair wonderful hoo they ever got intae their shells!"

Promotion of Pupils.

A pupil who has passed an examination and been given a certificate authorizing him to enter the next higher grade is without right in the absence of authority from the board of education to omit the grade to which promoted and pass to a higher one.—Board of Education of Sycamore vs. State, Ohio.

Where, by the direction of a parent of the pupil, the pupil, without authority of the board of education, enters the room of a grade higher than that to which promoted after examination, for the purpose of remaining there, it is

the right and duty of the superintendent of schools to refuse to allow the pupil to remain, and direct him to go to the room of the grade to which promoted.—Board of Education of Sycamore vs. State, Ohio.

Under the revised statutes of Ohio, section 4017, providing that the board of education shall have the management and control of all the public schools in the district, and section 3985, authorizing the board to make such rules and regulations as it may deem necessary for the government of the schools so far as rules so established are reasonable and fairly calculated to insure good government of the schools and promote education, they will be sustained by the courts.—Board of Education of Sycamore vs. State, Ohio.

A rule of a board of education providing for the examination at the end of the school year of pupils jointly by the teacher of the grade and the superintendent of the schools, and for the promotion of pupils to the next higher grade upon recommendation of the teacher and superintendent, the same being based on merit, is reasonable.—Board of Education of Sycamore vs. State, Ohio.

In the absence of a showing that application has been made to the board of education for permission to a pupil to enter a higher grade, and that the board had before it a report of its superintendent recommending the promotion of such pupil to such grade, mandamus will not lie to compel the board to order such promotion, though it may be shown that the pupil is, in fact, fitted to enter such grade.—Board of Education of Sycamore vs. State, 88 N. E. 412 (Ohio, 1909).

Gymnasium Supplies

Our new 112-page catalog, just issued, covers everything used in the gymnasium.

This catalog is of value for the information it contains and as a guide to the proper equipment of the gymnasium.

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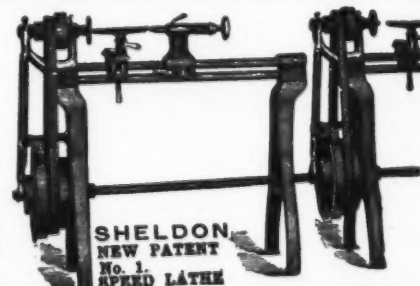
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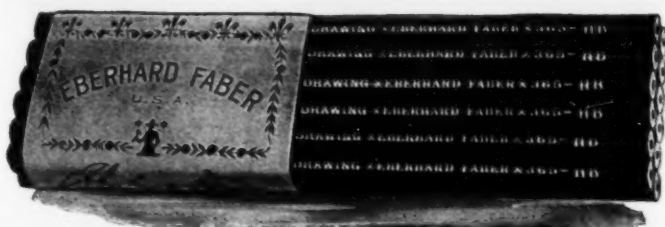
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SCHOOL TRADE NOTES.

It will be of interest to school people of the south to know that a move is on foot to reorganize the Owensboro Seating and Cabinet Company of Owensboro, Ky.

This company failed about a year ago, and as it was the only factory in the central states making school furniture the people of that vicinity have had to buy their goods from northern manufacturers, which makes it very expensive, the rate of freight being so high.

The new company expects to be ready for business with the beginning of the new year, and the promoters hope to have the co-operation of all the school boards in the southland.

De Kalb, Ill. The state normal school will be equipped with a Hahl automatic-pneumatic clock system. The master clock and forty secondary dials are manufactured by the Hahl Automatic Clock Company, Chicago.

The Peck-Hammond Company, Cincinnati, O., has been awarded contracts to install its fan furnace-blast system of heating and ventilating in the new school at Newberry, S. C. This school is designed by Messrs. Shand & Lafaye, architects, Columbia, S. C.

Sacramento, Cal. Contracts for blackboards awarded to the Capital Furniture Company, W. F. Purnell and Whitaker & Ray.

The contract for school desks and other furniture for the two new schools that are to be opened this fall at New Rochelle, N. Y., was awarded to Kenney Bros. & Wolkins, Boston.

Mitchell, S. D. Slate blackboards have been purchased from the American Seating Company at 28 cents per square foot.

New York City. Contract for school furniture in public school 41 awarded to the New Jersey School-Church Furniture Company, Trenton; for public school 17 to the Richmond School Furniture Company and the American Seating Company.

Owensboro, Ky. Eight hundred desks have been purchased for the use of the county schools.

Hartford, Ky. Desks have been purchased for the entire county from W. O. Jones & Co., Owensboro, Ky.

Henderson, Ky. Six hundred fifty "Silent Giant" desks have been purchased for the county schools.

The American Seating Company is able to ship orders for school desks promptly upon receipt of the order. Where shortages exist immediate shipments can be made.

The Peck-Hammond Company, Cincinnati, O., has contracted for installing its system of steam blast heating and ventilating in the large and handsome South Highland school, Birmingham, Ala. The plans are designed by Messrs. Miller & Martin, architects, Birmingham, Ala.

Waukegan, Ill. The school board has contracted to equip the township high school with steel lockers made by the Durand Steel Locker Co. of Chicago.

The Wilcox Mfg. Co. have doubled their sales of manual training benches and vises in the past year.

Huntington, Ind. The school board has purchased nine Smith-Premier typewriters.

The board of education of Columbus, Ohio, has purchased a portable schoolhouse from Mer-shon & Morley, Saginaw, Mich.

The school facilities of New Rochelle, N. Y., are increased this fall by the completion of the Trinity Place building of twenty-seven rooms, and of the Washington Avenue building of twenty-two rooms.

Portable Schoolhouses.

Portable schoolhouses have now come to be a recognized factor by the boards of education of nearly all our larger cities, and an absolute necessity by many of them. As an example of the territory covered by the manufacturers of these buildings, we find on inquiry that the American Portable House Company of Seattle, Wash. (whose advertisement appears in this magazine), have now in use by the school board of that rapidly growing city upwards of forty of these portable buildings, and in addition to having built numbers of them for nearby cities in the northwest the present season, they have within the past few weeks shipped six houses to Boston, Mass., one carload to New York City (to both of which cities they have previously shipped), and to Chicago, Ill., Youngstown, Ohio, and Oakland, Cal. The wide distribution of these buildings shows that they meet a long-felt want.

DEATH OF ISAAC D. SMEAD.

Colonel Isaac D. Smead of Cincinnati, Ohio, inventor of plumbing and heating devices, passed away suddenly from heart failure September 6, while at Baltimore, Md., on a business trip. Colonel Smead was born in Cole-rain, Mass., July 31, 1849, where he received his education. Coming west he settled first at Bloomington, Ill., and later in Toledo, Ohio, where he conducted a heating and ventilating business from 1882 to 1897, when he discontinued this business, moved to Cincinnati and opened a general designing and engineering office. He was the originator of the "dry closet system," which was widely introduced into schoolhouses during the nineties, a central heating system and an up-hill traffic cable system. His burial took place at Toledo, Ohio, on Thursday, September 9. His wife and two sons survive him.

World's Record in Shorthand.

Until the recent Lake George shorthand contest no established record on "straight" matter, composed of judges' charges, existed at speeds from 181 to 219 words per minute. Near the

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middle of this great blank a record has been established and all the records to date on this class of matter are as follows:

One hundred eighty words per minute for five minutes, with errors averaging one per minute, made by Sidney H. Godfrey (Isaac Pitman), in 1908.

Two hundred seven words, errors averaging 2 2-5 per minute, made by Willard B. Bottome (Graham), in 1909.

Two hundred twenty words, errors averaging 5 3-5 per minute, made by Sidney H. Godfrey (Isaac Pitman), in 1908.

Two hundred twenty-five words, errors averaging nine per minute, made by Miss Nellie M. Wood (Isaac Pitman), in 1907.

Two hundred thirty-five words, errors averaging 9 2-5 per minute, made by Clifford P. Gehman (Graham), in 1907.

Two hundred forty words, errors averaging 12 4-5 per minute, made by Miss Nellie M. Wood (Isaac Pitman), in 1909.

It will be seen from the above official records that Mr. Sidney H. Godfrey, twice winner of the Miner medal, still holds the record for accuracy in transcript on "straight matter."

Sample's American History and its Geographic Definitions has been adopted by the Washington state board of education for the state teachers' reading circle. It has also been selected by the teachers' reading circles of Indiana, Minnesota, North Dakota, South Dakota, Arkansas, West Virginia, Missouri and Idaho. It has also been listed in the state teachers' reading course of North Carolina.



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Physical Welfare of Children.

Ten steps for the protection and physical welfare of school children have been outlined recently by William H. Allen of the New York Bureau of Municipal Research. They constitute a practical program for medical inspection that can be carried into effect immediately. The ten steps are:

First—A thorough physical examination of all children of all schools, public, parochial and private.

Second—Notification of parents and family physicians as to children's needs. That tens of thousands of records of defects piled up at health headquarters do not help children has been conclusively proved in New York.

Third—"Follow up" notices with visits to inform and persuade parents to correct defects and to remove their causes.

Fourth—Enforcement of existing laws and securing proper authority, where this is now lacking, to compel obstinate parents to take necessary steps.

Fifth—Periodic re-examination of school children during school life.

Sixth—Physical examination of children when applying for work certificates.

Seventh—Use of information gained regarding physical effects of bad living conditions to secure enforcement of health and tenement laws, restrictions of hours of labor, control of dangerous trades, prevention of child labor.

Eighth—School buildings and school curriculum should be so constructed and so managed that they cannot themselves either produce or aggravate physical defects.

Ninth—The effect of school environment and school requirements upon the child should be constantly studied. Teachers should be examined and re-examined for their vitality, which exercises an important influence upon that of the pupil.

Tenth—Hygiene should be so taught that children will learn their health right and how to maintain them.

Vaccination Certificates.

Memphis Tenn. The school board has promulgated a set of rules concerning vaccination certificates for the guidance of teachers and principals. They require:

"1. All certificates must be written in ink or indelible pencil.

"2. A positive statement must be made by a reputable physician that the individual has been successfully vaccinated.

"3. Certificates of repeated vaccination must be signed by the president or secretary of the board of health.

"4. A certificate of repeated vaccination must bear date during the school year for which it is being used.

"5. Certificates signed by physicians not residents of Memphis will not be accepted.

"6. Teachers will please have their certificates arranged with reference to their roll books.

"7. Each individual must have a separate certificate.

"8. Torn, mutilated or altered certificates will not be accepted."

Text Books.

A book for rural high and agricultural schools on the "Production and Care of Clean Milk" has just been re-issued by Wm. R. Jenkins Co., New York. The author is Dr. Kenelm Winslow, formerly of Harvard University. The new edition is double the size of the original and gives all practical details about clean milk from the time it leaves the cow until it reaches the consumer. A practical part of the book for students of dairy bacteriology consists in the account of the laboratory experiments by Professor Conn.

These give all the details for determining the common bacteria in milk and for studying their characteristics. They also show how to determine the effects of pasteurization; of contamination of milk with dirt and dirty utensils; the effects of improper cooling and care, etc. Moreover, methods of milk analysis are given and directions for the practical examination of cream, butter and cheese.

While the work is scientific or exact, it is written as well for the intelligent layman. The writer has had perhaps unusual facilities for studying all sides of his subject, being a practicing physician, a graduate of a medical, veterinary and agricultural school, and he has had practical experience with animals and with the production and distribution of certified milk, and he has also been an official in charge of a laboratory having supervision over the milk supply of a large city.

AMONG BOARDS OF EDUCATION.

The secret marking system for rating teachers in the Chicago public schools is to be abandoned, according to a plan announced last month by Supt. Ella F. Young. Teachers are to be rated entirely upon efficiency and in an open manner. Instead of the individual percentage plan, five groups are to be established and every teacher will be marked superior, excellent, good, fair and inefficient. In direct opposition to the policy of Former Supt. Cooley, every teacher who wishes to know in what group she has been placed may find out by applying to Mrs. Young.

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from the mayor, the school board has closed twenty-four elementary classrooms located on the third floors of various school buildings. The use of laboratories and drawing rooms, similarly located in the high schools, has also been discontinued. The buildings affected are not equipped with fire escapes according to law. The board is seeking temporary quarters for the children displaced.

The evils of intemperance are made a subject of study for the public schools of Alabama under a recent act of the state legislature (Aug. 19, 1909). The state superintendent is required by the enactment to furnish the schools with placards setting forth statistics, epigrams and mottoes on the dangers of intoxicating liquors. One day in each scholastic term is to be known as "Temperance Day," and is to be devoted to a program on temperance. No penalty is provided for failure to observe the law.

TRADE INSTRUCTION.

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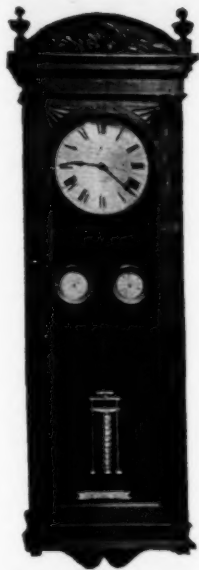
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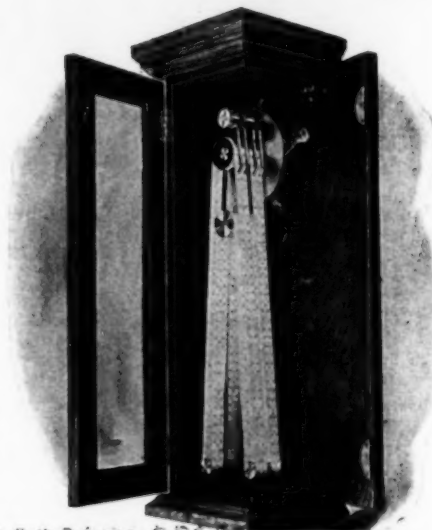
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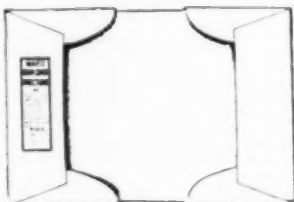
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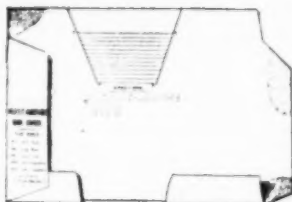
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